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THE MULTIPLICATION OF HORTICULTURAL SOCIETIES is taking place so rapidly of late, in various parts of the country, as to lead one to reflect somewhat on their influence, and that of the art they foster, upon the character of our people.

Most persons, no doubt, look upon them as performing a work of some usefulness and elegance, by promoting the culture of fruits and flowers, and introducing to all parts of the country the finer species of vegetable productions. In other words, they are thought to add very considerably to the amount of physical gratifications which every American citizen endeavors, and has a right to endeavor, to assemble around him.

Granting all the foregoing, we are inclined to claim also, for horticultural pursuits, a political and moral influence vastly more significant and important than the mere gratification of the senses. We think, then, in a few words, that Horticulture and its kindred arts, tend strongly to fix the habits, and elevate the character of our whole rural population.

One does not need to be much of a philosopher to remark that one of the most striking of our national traits, is the SPIRIT OF UNREST. It is the grand energetic element which leads us to clear vast forests, and settle new States, with a rapidity unparalleled in the world's history; the spirit, possessed with which, our yet comparatively scanty people do not find elbow-room enough in a territory already in their possession, and vast enough to hold the greatest of ancient empires; which drives the emigrant's wagon across vast sandy deserts to California, and over Rocky Mountains to Oregon and the Pacific; which builds up a great State like Ohio in 30 years, so populous, civilized and productive, that the bare recital of its growth sounds like a genuine miracle to European ears; and which overruns and takes possession of a whole empire, like that of Mexico, while the cabinets of old monarchies are debating whether or not it is necessary to interfere and restore the balance of power in the new world as in the old.

This is the grand and exciting side of the picture. Turn it in another light, and study it, and the effect is by no means so agreeable to the reflective mind. The *spirit of unrest*, followed into the bosom of society, makes of man a feverish being, in whose Tantalus' cup *repose* is the unattainable drop. Unable to take root anywhere, he leads, socially and physically, the uncertain life of a tree transplanted from place to

place, and shifted to a different soil every season.

It has been shrewdly said that what qualities we do not possess, are always in our mouths. Our countrymen, it seems to us, are fonder of no one Anglo-Saxon word than the term *settle.** It was the great object of our forefathers to find a proper spot to settle. Every year, large numbers of our population from the older States, go west to settle; while those already west, *pull up*, with a kind of desperate joy, their yet new-set *stakes*, and go farther west to settle again. So truly national is the word, that all the business of the country, from State debts to the products of a "truck farm," are not satisfactorily adjusted till they are "settled;" and no sooner is a passenger fairly on board one of our river steamers, than he is politely and emphatically invited by a sable representative of its executive power, to "call at the captain's office *and settle!*"

Yet, as a people, we are never settled. It is one of the first points that strikes a citizen of the old world, where something of the dignity of repose, as well as the value of action, enters into their ideal of life. De Tocqueville says, in speaking of our national trait:

"At first sight, there is something surprising in this strange unrest of so many happy men, restless in the midst of abundance. The spectacle itself is, however, as old as the world. The novelty is to see *a whole people* furnish an exemplification of it.

"In the United States a man builds a house to spend his latter years in, and sells it before the roof is on; he brings a field into tillage, and leaves other men to gather the crops; he embraces a profession, and gives it up; he settles in a place, which he soon after leaves, in order to carry his changeable longings elsewhere. If his private affairs leave him any leisure, he instantly plunges into the vortex of politics; and if at the end of a year of unremitting labor, he finds he has a few days vacation, his eager curiosity whirls him over the vast extent of the United States, and he will travel fifteen hundred miles in a few days, to shake off his happiness."

Much as we admire the energy of our people, we value no less the love of order, the obedience to law, the security and repose of society, the love of home, and the partiality to localities endeared by birth or association, of which it is in some degree the antagonist. And we are therefore deeply convinced that whatever tends, without checking due energy of character, but to develop along with it certain virtues that will keep it within due bounds, may be looked upon as a boon to the nation.

Now the difference between the son of Ishmael, who lives in tents, and that man who has the strongest attachment to the home of his fathers, is, in the beginning, one mainly of outward circumstances. He whose sole property is a tent and a camel, whose ties to one spot are no stronger than the cords which confine his habitation to the sandy floor of the desert, who can break up his encampment at an hour's notice, and choose a new and equally agreeable site, fifty miles distant, the next day—such a person is very little likely to become much more strongly attached to any one spot of earth than another.

The condition of a western emigrant is not greatly dissimilar. That long covered wagon, which is the Noah's ark of his preservation, is also the concrete essence of house and home to him. He emigrates,

* Anglo-Saxon *sath-lian*, from the verb *settan*, to set, to cease from motion, to fix a dwelling place, to repose, etc.

he "squats," he "locates," but before he can be fairly said to have a fixed home, the spirit of unrest besets him; he sells his "diggins" to some less adventurous pioneer, and *tackling* the wagon of the wilderness, migrates once more.

It must not be supposed, large as is the infusion of restlessness in our people, that there are not also large exceptions to the general rule. Else there would never be growing villages and prosperous towns. Nay, it cannot be overlooked by a careful observer, that the tendency "to settle" is slowly but gradually on the increase, and that there is, in all the older portions of the country, growing evidence that the Anglo-Saxon love of home is gradually developing itself out of the Anglo-American love of change.

It is not difficult to see how strongly horticulture contributes to the development of local attachments. In it lies the most powerful *philtre* that civilized man has yet found to charm him to one spot of earth. It transforms what is only a tame meadow and a bleak aspect, into an Eden of interest and delights. It makes all the difference between "Araby the blest," and a pine barren. It gives a bit of soil, too insignificant to find a place in the geography of the earth's surface, such an importance in the eyes of its possessor, that he finds it more attractive than countless acres of unknown and unexplored "territory." In other words, it contains the mind and soul of the man, materialized in many of the fairest and richest forms of nature, so that he looks upon it as tearing himself up, root and branch, to ask him to move a mile to the right or the left. Do we need to say more, to prove that it is the panacea that really "settles" mankind?

It is not therefore, without much pleasurable emotion, that we have had notice lately of the formation of five new Horticultural societies, the last at St. Louis, and most of them west of the Alleghanies. Whoever lives to see the end of the next cycle of our race, will see the great valleys of the west, the garden of the world, and we watch with interest the first development, in the midst of the busy fermentation of its active masses, of that beautiful and quiet spirit, of the joint culture of the earth and the heart, that is destined to give a tone to the future character of its untold millions.

The increased love of home and the garden, in the older States, is a matter of every day remark; and it is not a little curious, that just in proportion to the intelligence and *settled* character of its population, is the amount of interest manifested in horticulture. Thus, the three most settled of the original States, we suppose to be Massachusetts, New-York and Pennsylvania; and in these States horticulture is more eagerly pursued than in any others. The first named State has now seven horticultural societies; the second, seven; the third, three. Following out the comparison in the cities, we should say that Boston had the most settled population, Philadelphia the next, and New-York the least so of any city in the Union; and it is well known that the horticultural society of Boston is at this moment the most energetic one in the country, and that it is stimulated by the interest excited by societies in all its neighboring towns. The Philadelphia society is exceedingly prosperous; while in New-York, we regret to say, that the numerous efforts that have been made to establish firmly a society of this kind have not, up to this time, resulted in any success whatever. Its mighty tide of people is as yet too much possessed with the spirit of business and of unrest.

REMARKS ON THE SCIENCE OF GARDENING—No. II.

BY DR. WM. W. VALK, FLUSHING, L. I.

EARTHS AND SOILS.—In our first article,* introductory to the series, an attempt was made to show that gardening was an art of far higher pretensions than those persons can admit it to be, who look only to the routine of the mechanical operations which attend it. And also, by referring to the mighty agents which are constantly exerted in effecting the development and progress of every plant, from the humblest moss to the largest tree, we hoped to make it evident that it ought to be treated and studied as a *science*, which can never be duly appreciated until its principles be taught in seminaries, or in classes attached to horticultural societies, by men of talent and sound practical knowledge.

Earths and *soils* being essential to the growth of plants, and, to a certain extent, familiarly known to every one, claim our first attention; yet it must be confessed, that to attain a perfect understanding of their structure and components, would demand a profundity of chemical knowledge which few can hope to acquire. The student must not therefore, be perplexed by any attempt to enter into the mysteries of science, consequently we restrict ourselves to the pointing out of what ought to be, and may be known. The *great* object we desire to accomplish, must be left to time and circumstances.

The very term *earth*, involves a tissue of errors and misconceptions, which are the sources of many of the failures that professional men, in common with amateurs, are subjected to. *Loam* is a word in the mouth of every one; we meet with it on every horticultural page; but who understands it? Agricultural chemists have felt the importance of the difficulty, and have written and lectured on the subject of *analysis of soils*, yet their labors have not been duly appreciated.

By this term *analysis*, is to be understood the dissolution, disseverment, or entire separation of parts, under powerful chemical agency; and therefore, we at once perceive how difficult it is for those who are not familiar with the processes of the laboratory, to investigate satisfactorily the properties of earths and soils. Yet we unhesitatingly affirm, that a complete understanding of their agency in the process of cultivation, cannot be had, without the assistance of analytic chemistry; therefore, we claim that this branch of science ought to become a part of horticultural education. So far, we have gained a point; for if it be true that a soil, in order to be properly applied to a plant, should be thoroughly known, then the science of analysis should be taught to the youth of the rising generation, whose aim it is to keep pace with the intelligence of the age.

But though we claim this admission, we are conscious that in the present state of knowledge, any attempt to elucidate the direct processes of analysis would be embarrassing; therefore, we propose to adopt a more simple order of investigation, by which we hope to remove difficulties, and to instruct any one to acquire, with some degree of precision and certainty, the estimated componency of an earth, and its applicability to the operations of horticulture.

In the first number of the *Journal of the*

* Vol. I., p. 505.

Royal Agricultural Society of England, is a prize essay on soils, by the Rev. Mr. Rham. This gentleman, perceiving the difficulties attendant upon a regular analysis by chemical agents, devised and propounded a *mechanical* process, which possesses high merit. It has been honorably noticed in several periodicals, but, able as it is, the processes described are too elaborate for ordinary practice. Something more simple will answer better.

The three chief earths, which will be found in almost every good garden, are *loam*, *heath earth* (erroneously termed peat,) and *leaf mould*. *Sand* of every kind is in constant requisition; that is, pure silver, or glass-house sand, which needs no investigation, for it is little else than flint in a state of minute division, and therefore not susceptible of decomposition.

Loam is the staple of the land; it occurs abundantly, but varies extremely in its texture and quality. That kind which is propitious to every operation of the garden and floriculture, is soft, and smooth or unctuous, but so little liable to adhere or clod, that if a handful of it be tightly compressed, when just so moist as to be in a fit condition for potting, and be suffered to fall from the hand, it will break on the ground into fine particles. Such a loam will remain firm, yet open, in a garden pot, without cracking into fissures or detaching itself from the sides. It is composed of pure clay, very fine sand, iron in a condition resembling ochre, and generally a small proportion of chalk. In naming *pure clay* (alumina,) we do not mean clay in the common sense of the term, because the stiffest and most binding clays of the field contain a very large proportion of sand. But to prove the existence of the above named earths, recourse must be had to chemistry; yet as it is not our present object so to do, our investigation must be confined to texture only; therefore, whenever it is intended to compare two kinds of loam, the gardener should possess himself of a sort he knows to be good, approaching in quality to that above described, and by submitting it to the following simple operations two or three successive times, in order to prevent error in early practice, a *standard* will be obtained by which to judge of the value and applicability of any loam that is found elsewhere. The *instruments* of analysis will consist of a pair of scales, sufficiently accurate to detect a single grain, a set of troy weights, three or four jugs or tall narrow glasses with lips, a strainer with fine holes, a small hair sieve, another of gauze, a glass funnel, a few folded pieces of white filtering paper, a small wedgwood mortar with a lip and pestle, and two or three tumblers. These will form a very ample set of utensils; though, with the scales, two small jugs, the mortar, and a few cups, all may be done that is necessary.

Process:—Collect a specimen of the loam to be examined, dry it in the sun, and remove any stones or pieces of wood that may be among it. Then weigh an ounce or half an ounce, troy or apothecary's weight—the first 480 grains, the latter 240. Rub the earth in the mortar, so as to detach the gritty sand, and separate *that* by the sieve. Weigh the grit, and note the weight in grains: again weigh the fine siftings accurately, and make up any loss by a little more fine earth: then dry it in a saucer at a heat of about 250 degrees. Weigh it *while hot*, and the loss will show the quantity of moisture which the soil retains naturally, however dry it may appear. This moisture it will attract again by being exposed to the atmosphere.

Return the fine earth to the mortar, and rub it with water, gradually added, till a

separation of parts be apparent; then pour off the floating matter, and repeat the rubbing and washing with fresh water, till nothing but sand remain in the mortar: dry this sand by placing the mortar on a grate or stove. In the meantime all the waters being collected together in one jug or glass, will gradually deposit the fine particles, and the liquor will exhibit more or less color, resulting from vegetable or other manuring substances contained in the earth.

This earth and water should next be well mixed, and after standing quiet for a minute or two, be poured into another vessel slowly and cautiously, because some sand will pass from the mortar, and this must be separated by repeated washings.

This second process will separate the fine matter of the soil, and the sediment can readily be collected by pouring off the water that appears quite clear, and then the remainder *with* the sediment, either into a plate or a paper filter previously weighed and placed in a funnel. In either case, the few particles remaining in the jug must be removed by a little more water, and added to the rest, or be wiped off with a piece of dry linen accurately weighed beforehand. The earthy sediment is to be first dried by slow evaporation, and then by a heat equal to that which was employed in the first instance. All the dried products are to be weighed, and when three experiments of the kind have been completed, the operator may reach his conclusions. Thus, of 240 grains, 120 may be of the *fine earths*, which we call clay, as they contain all the alumina of the soil; 20 grains of *coarse sand*, separated by sifting, and 90 grains of *fine sand*, left by the several washings. Some loss there undoubtedly is, and 10 grains is not too great an allowance in 240.

By this investigation, it is evident we do not detect the chalk, iron, or pure clay; nor can we hope to do so, without chemical agency; but the discovery has been made, *how to compare one soil with another*, and we can now form some idea of the errors and failures which attend a vague and random use of terms, and no longer take it for granted that the loam of a Flushing nursery is identical with one so called in Ohio.

But there is also *vegetable nutritive matter* in all loams, and a portion of this is soluble in water: the actual weight of it may be ascertained by taking a fourth parcel of the dried, powdered loam, and keeping it at a full red heat till there remain no black color in the earth after becoming cold; the loss of weight will then show the quantity of vegetable fibre (or of the substance now called *humus*,) which the loam contained; and thus its fertilizing qualities will be more readily estimated. It is astonishing to what extent *sand* may exist in a loam, and yet leave it hard bound after watering; a sharp, harsh, gravelly grit may form three parts of four of a loam that then remains quite intractable; therefore we advise the gardener to attend strictly to the texture of the sand which, in the best loams, is finer than silver sand; upon this ingredient depends the softness of the loam, and its fitness for the purposes of pot culture. If equal parts of this fine earth and heath soil be required for a certain tribe of plants, a gardener who has only a stiff and rigid loam at command, must only use one-third or *less* of it, otherwise he must fail in keeping his plants in health.

Of *leaf mould* and manure, we must speak in another article. *Sand*—pure sand—requires no analysis; but pit sand should be washed. *Heath soils* differ exceedingly, yet all contain iron. They only require the operation of fire to ascertain their relative

value. Each specimen should be dried, weighed, and burned in a crucible, or iron ladle, till nothing but sand remain; the loss of weight will then show how much vegetable matter each parcel contained.

WM. W. VALK, M. D.

EFFECTS OF THE SEVENTEEN YEAR LOCUST ON THE ROOTS OF TREES.

BY J. A. K., ALBANY.

MR. DOWNING—In the proceedings of the Academy of Natural Sciences of Philadelphia, of Nov. and Dec., 1846, are reported some remarks by Miss MORRIS, in relation to the larvæ of the locust (*Cicada septemdecim*) preying upon the roots of fruit trees. As relating to the article in the November number of the Horticulturist, upon "Renovating an 'outcast' pear tree," you may deem them sufficiently interesting and important to lay before the readers of your valuable journal.

Before copying the remarks of Miss M., allow me to make some suggestions respecting the experiment of 'J. B. W.' detailed in the number of the 'Horticulturist' referred to.

Cutting off a portion of the roots of an old tree, in order to restore it to healthful vigor and fruitfulness, may be justified by reasons which I do not understand, but I confess the practice *appears* to me quite *unnatural*. This of course has no reference to dead or much injured roots. To amputate such, is reasonable enough; but to cut off all the roots, indiscriminately, at a given distance from the tree, is the point excepted to.

The *rationale* of 'J. B. W.'s' experiment, as given, is, that the tree had exhausted the proper elements from the soil, in consequence of which the fruit failed. These elements were restored, by the fresh earth mixed with the scoriæ, charcoal, and potash.

Miss MORRIS, as you will perceive, gives another and different explanation. She supposes the *larvæ of the Cicada* to have been the real cause of disease, and in cutting off the roots, they were removed, and the trees then left free 'to take advantage of the congenial soil placed around them.'

Assuming the first, as the true cause of the evil, I would suggest, that the remedy was very imperfectly applied—the renovated soil being merely presented at the extremities of the roots; whereas they should have been entirely uncovered and the new soil covered over them.

Also the practice of 'J. B. W.' was not adapted to the *larvæ* theory. For there is no reason to suppose the *larvæ* occupied the extremities of the roots any more than the inner portions; and particularly too, if Miss M.'s inference be true, that 'the grubs never leave the roots they first fasten on,' and therefore cutting off the extremities would not remove the evil.

Nor do I think the result of the experiment in question, affords even presumptive evidence, that the plan adopted was the best. *Only two* bushels from one tree, and *four* from the other, the *third* year after the remedy was applied, and that from full grown trees. Now, I have faith to believe, that if your excellent correspondent, 'J. B. W.,' had omitted the procrustean operation upon the roots, and had simply removed the old soil and substituted the new, as already suggested, and as his trees were probably

suffering in part from the *Cicada*, if he had scraped the roots while uncovered, and brushed them over with the soft soap, to destroy the *larvæ*, not omitting the outside process of 'heading back the top,' scraping the bark, &c., that the third year would have afforded him three times six bushels from the two trees.

But I beg pardon for keeping you so long from the article of Miss Morris. Here it is, *verbatim et literatim:*

"I have for a number of years, believed that the failure of fruit on trees over twenty years old, was mainly owing to the ravages of the larvæ of the *Cicada septemdecim*, though entomologists have heretofore considered them harmless, or nearly so, believing that the principal injury caused by them was received on the branches of the trees when depositing their eggs. But from the fact of their burrowing into the earth the moment of their escape from the eggs, and their living, as all acknowledge, on the sap of the roots of plants, I was led to think that the constant drain of sap required to nourish so many thousands of grubs, of from a quarter of an inch to an inch in length, must be more than a tree could live through, and yield good fruit. I was confirmed in this opinion, by an experiment made by J. B. W., New-York, and published in the November number of the Horticulturist, page 227. The method prescribed to renovate an outcast, is to dig a trench four feet wide and twenty inches deep, around the tree, leaving a ball of earth six feet in diameter, and then to fill the trench with rich earth and compost. The author states that the experiment succeeded, and that in three years the tree was in a flourishing condition and yielded fine fruit. The writer attributes the change to the new and rich soil with which he supplied the tree. I argue, that on cutting off the larvæ of the *Cicada*, which he did when he cut off so large a portion of the roots, he removed the real disease, and the tree was then in a condition to take advantage of the congenial soil placed around it; and new life was given to roots and branches. Under this impression, I superintended a similar experiment on a pear tree that had been declining for years, without any apparent cause, and agreeably to my expectations, I found the *larvæ* of the *Cicada* in countless numbers clinging to the roots of the tree, with their suckers piercing the bark, and so deep and firmly placed, that they remained hanging for half an hour after being removed from the earth. From a root a yard long, and about an inch in diameter, I gathered twenty-three larvæ; they were of various sizes, from a quarter of an inch to an inch in length. They were on all the roots that grew deeper than six inches below the surface. The roots were unhealthy, and bore the appearance of external injury from small punctures. On removing the outer coat of bark, this appearance increased, leaving no doubt as to the cause of the disease.

"The larvæ were enclosed in a compact cell of earth, with no outlet except that in immediate contact with the root, and as there were no galleries or holes leading from these cells, I infer that the grubs never leave the roots they first fasten on; which may account for the great difference of size: the small ones being starved specimens of the same brood; though I am inclined to believe that there are two species, differing sufficiently in size to account for the discrepancy in the size of the larvæ now found. I noticed this difference in 1817, and again in 1834: the note of the smaller variety, or species, is much shriller than that of the larger, and will never be mistaken when noticed.

The *Cicada* is too well known to need a description here; I will therefore only notice its habits, as they have fallen under my own observation, and make a few extracts from an article published in the National Gazette, and written by my brother, Mr. THOMAS W. MORRIS, in 1834.

The eggs require forty-two days to mature in the branches of the tree; they then burst the shell and appear, a minute but active fac simile of the parent in the larva state, except the absence of the wing cases; they require but a few moments to stretch their limbs and prepare for labor, before they unloose their hold on the twigs on which they had been deposited, and fall to the ground, where they immediately disappear in search of food in the roots of the tree. If the eggs that are about to hatch, be placed over a glass jar filled with earth, the young grubs will, in a few hours after their escape from the eggs, be seen at the bottom of the jar, endeavoring to force their way still deeper. When first hatched, they are quite white, but soon change to yellowish brown. They exist in separate tribes, occupying different sections of country; making their appearance in different years, but invariably after the same interval of time. For a year or two before the arrival of the main body, a few scattered individuals are generally found.

Mr. MORRIS thus describes them, as noticed by him at various times and places:

"In November, 1812, I found a large number of locust grubs under an old apple tree, between two and three feet below the surface, having every appearance of such as now issue from the ground, and nearly of the same size. On the 27th of June, 1815, I saw a portion of one of their countless tribes west of the Alleghany mountains, extending from the summit of the Chestnut ridge into the State of Ohio, beyond Steubenville; occupying every shrub and tree, except the pines, and the walnut, hickory, and some of the same family. On my return in the latter end of the following month, not an individual of the myriads which had occupied that space, was to be seen; the tops of the forests, for upwards of a hundred miles, appeared as if scorched by fire. In 1832, just seventeen years after, I noticed a newspaper paragraph, which stated that the locust had appeared in that neighborhood in large numbers.

The northern parts of Pennsylvania and New-Jersey were visited by them in 1826, when I had another opportunity of seeing this extraordinary insect. On my way from Easton, through New-Jersey to Milford, in Pike county, Pennsylvania, I fell in with a very numerous body; how far they extended, I was unable to learn, but they did not disappear from my route until after passing through a large part of Pike county, a distance by the road, of more than sixty miles from the place where I saw them on the 23d of May. Trees and shrubs are necessary as places of deposit for their eggs; consequently, though numerous in the State House Square, none were to be found in Washington Square, which, in 1817, was destitute of trees." J. A. K.

THE LOUDON PENSION.—The British government has given a life pension of £500 to the widow of the late John Loudon, in consideration of the great benefits conferred on his country by his writings on rural subjects—a pension quite as worthily bestowed as those on warriors, novelists, and politicians.

DESCRIPTION OF THREE FINE WESTERN APPLES.

BY H. P. BYRAM, KENTUCKY.

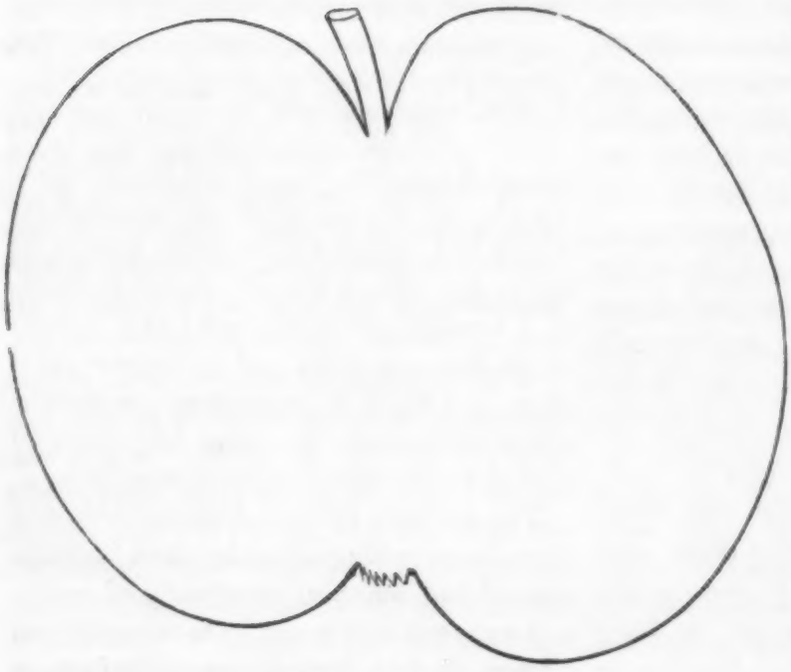


Fig. 1. Pryor's Red Apple.

[We are indebted to Mr. BYRAM, an intelligent Kentucky cultivator, for the following descriptions of three celebrated western varieties of the apple, which we have not previously seen correctly described.—ED.]

I. PRYOR'S RED.—No apple commands a higher price, or more ready sale, in the market of New-Orleans than Pryor's (sometimes called Prior's) Red. Probably one-third of all the apple trees sold at nurseries *below* Cincinnati, are of this variety; and it has hitherto been difficult to supply the demand for it.

In form, this apple varies more than many others. The outline which I send you, is from a fruit of the average shape and medium size. It is often larger. Skin brownish-yellow, slightly russetted, tinged with red, and rather indistinctly striped to within about an inch of the stalk, where it is marked with clear brownish russet. Flesh yellowish-white, of a fine, rich, and peculiar flavor, sub-acid, rather dry, and very tender (resemb-

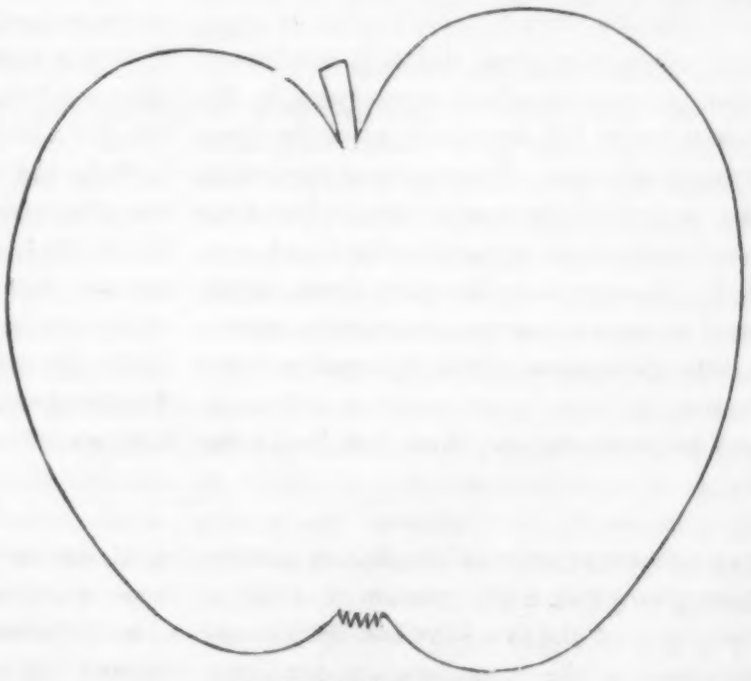


Fig. 2. Rawle's Jannett Apple.

ling in texture and flavor some *pears* that I have eaten, more than an apple.) Calyx small, stalk usually about three-fourths of an inch long. Ripe from December to February.

The tree is smooth, of upright, regular growth, and bears abundant crops. While in the nursery it produces but few branches, and these are irregularly distributed; the bark is then smooth, reddish, and dotted over with white specks, not unlike the stem of a young cherry tree.

II. Raule's Jannett.—A very productive and highly popular orchard fruit, of the Ohio valley. It keeps remarkably well, is in eating from December to June.* It is about medium size; skin smooth, striped with red, darker on the side next the sun, upon a yellow ground inclining to green near the stem; surface partially covered with patches of small black dots. Calyx closed, stem half inch long. Flesh yellowish, firm, tender, juicy, rather acid, of a mild, agreeable flavor.

The tree grows with a spreading head, and a clean and smooth trunk. It possesses the remarkable peculiarity of putting forth its leaves and blossoms nearly *two weeks later* than any other apple. Hence in the fickle climate of the south and west, it escapes the effects of the late frosts, which renders it a very certain bearer.

III. Yellow or striped Jannett.—Tree identical with the foregoing, and also very largely cultivated. Fruit more red, and more generally covered with the black spots. It tapers less towards the eye. Flesh of a deeper red, rather tough, and less juicy, but higher flavored than the Raule's Jannett, and is considered inferior to the latter.

I met with a highly intelligent gentleman yesterday, formerly from Virginia, who stated to me that the *Raule's Jannett* was raised a seedling by one *Caleb Raules* (with whom he was acquainted,) of Amherst county, Va., near the Blue Ridge, and from the location he attributes its habit of putting out so late in the season.

H. P. Byram.

Brandenburgh, Meade Co., Ky., 1847.

* The writer has kept them firm and sound until the 4th of August, but with the loss of much of their flavor.

DESIGN FOR A RURAL COTTAGE.

The design [see Frontispiece] offered in this number, is for a cottage of very moderate dimensions, in the English rural style. It is of course intended for a small family, and its merits are compactness of accommodation in the plan, and picturesque effect in the exterior.

The ground plan of the principal floor, fig. 4, shows a vestibule or hall, 12 by 14 feet, containing the staircase, and which, from its form and size, makes in itself a pretty little ante-room.

This hall opens into the two principal rooms of the cottage, viz., the parlor and the living-room, each 16 ft. by 18 ft. The size and good effect of the parlor is increased by a pretty large *bay* or projecting window, outside of which is a veranda seat. At the opposite end of the house, a small corresponding addition, one story in height, contains the store-room and pantry—both opening into the living or dining room. This cottage is supposed to have a basement story, to which interior access is obtained by stairs descending under those in the hall. It contains a kitchen under the

living-room, store-room under the hall, and cellars under the parlor.

The second story contains four bed-rooms. This cottage would have the best effect if built of brick and cement. It may also be constructed very cheaply, and with very excellent effect, of the large unburnt brick now coming into use in many parts of the country, as its wide projecting roof is well calculated to protect walls of the latter kind against damage by the weather.

The roof itself is to be covered with shingles of nearly uniform size, and cut lozenge form, so as to form diamond figures when laid, an easy and striking mode of giving an ornamental character to a wooden roof.

HINTS ON THE CULTURE OF GERANIUMS.*

BY PELARGONIUM, OF PHILADELPHIA.

I HAVE thought that a few popular hints on the cultivation of the Pelargonium, at this season of the year, will be acceptable to some of the numerous readers of the Horticulturist, from one who has long cultivated it as his favorite flower, with good success. The Pelargonium is not only the gayest ornament of the conservatories of the wealthy, at the same time, but it is no less a favorite flower in the cottage window, and where carefully grown, is scarcely surpassed in its masses of green verdure and clusters of flowers of the richest colors.

I have repeatedly felt regret, when called upon by ladies, to look at their "geraniums," at seeing plants with three or four long shoots, at the top a few leaves and ordinary flowers; and this has been the reward perhaps of one or two years of care and patience; when at the same time those who have the convenience, might have, with very trifling care and expense, from the first of April to July, plenty of flowers for bouquets, and at the same time display parlor windows decorated with the finest plants.

One of the first points for the beginner to settle is the choice of sorts: the twenty-five named varieties below are distinct ones, of excellent colors, reasonable in price, and can be obtained of any respectable nurseryman: Grand Duke, Lenoxii, Arabella, Coronation, Jewess, Bridesmaid, Climax, Jubilee, Matilda, Conservative, Comte de Paris, Hebe, Nymph, Beauty of Ware, Flash, Lord Aucland, Miss Percival, Eliza, King, Rising Sun, Shrubland Scarlet, Sylph, Witch, Sidonia, Louis Quatorze. The amateur will of course require a small greenhouse to grow the plants in. The best place for it will be under a wall or building that has a full exposure to the south and east, so that the plants may have the light and sun as early as possible in the morning. A green-house of the small dimensions necessary to grow an excellent private collection of these plants may, in such a place, be put up, if very plainly built, at a trifling cost. I will suppose it to be twenty feet long, twelve broad, at the back part ten feet high, at the front five feet, inside measure. In a house of these dimensions, there would be room for a stage having six steps, each step fourteen inches broad, the highest being four feet from the glass, and the rest descending so that each

* Strictly Pelargoniums—the division of this class of plants popularly known as Geraniums.

is eight inches below the other. The walk should be three feet broad, and a small front level stage over the flue should be two feet broad; this stage being two feet from the glass, would be a convenient place for a few *calceolarias*, *cinerarias*, or other plants that require the same treatment as the Pelargoniums. In propagating the various varieties, it will be found that a *spent hot-bed* is the best place in which to plant the cuttings. They may be taken from the old plants any time during the months of April or May. After planting them in the soil of the old hotbed, they should be well watered and kept shaded during the day. As soon as they are well rooted, which will be in a few weeks, pot them into four inch pots, in sandy loam, place them on the front stage. The most important point now is, the *pinching off the ends of the shoots*, so that the plants will make plenty of side shoots. This attended to, gives fine round bushy heads; neglected, gives lean, starved trees. Water the plants only moderately in winter. In March, when the plants begin to grow, pot them into six inch pots, in rough rich loam—that made of old pasture sods, well rotted, is the best. In May take the young shoots off for cuttings, treating them as I have already mentioned. Whenever you observe any tendency to long, unsightly branches, correct it by pinching off the ends of the shoots, so that the plants will be bushy. The plants in the pots should be allowed to remain in the open air all the summer, in a somewhat shaded aspect, and not plunged in the ground, but set upon a floor two or three inches thick of coal ashes. They should be put into winter quarters before the season of the first frost. During the winter keep the house moderately cool, and the plants rather dormant. About the first of March, begin to keep your house warmer during the night, giving plenty of air every favorable day. When the plants begin to grow finely, put them into eight inch pots, with plenty of drainage at the bottom (bits of charcoal are the best drainage;) and the plants, if well grown, will require no tying up to stakes, but the lowest branches will fall gently on every side, half concealing the pot, and forming rich bushy masses of green leaves. Plants in this condition may be allowed to bloom all the buds they will form.

The house once a week should be fumigated with tobacco, to destroy the green fly. Syringing over the leaves in the morning, will greatly add to the health and luxuriance of the whole collection.

Those who do not possess a green-house of any sort, may, with the aid of a couple of hot-bed lights and frames in which to strike the cuttings, and by following the simple hints I have thrown out, grow a sufficiency of specimens, much more compact and robust than are usually seen, to adorn the parlor, plant stage, or the windows of any well lighted apartments, free *from frost and not too warm.*

Yours, PELARGONIUM.

Philadelphia, 1847.

PEACH CROP. — It would be an interesting statement to know how often the peach crop fails, on the most favorable sites, in different parts of the country. The opinion of H. N. Langworthy, a very successful peach raiser of Rochester, as stated in the Genesee Farmer, is, that there is not an entire failure oftener than once in ten years, in Western New-York, or between Lewiston and Sodus bay, on Lake Ontario.

NOTES ON THE STRAWBERRY QUESTION.

BY N. LONGWORTH, CINCINNATI, OHIO.

DEAR SIR — The strawberry question at this time gives me little trouble, as the strawberry committee of our Horticultural Society have the subject in charge, and they all have botanical knowledge, joined to personal attention to the cultivation of the fruit; and they will have ample opportunity the present season, thoroughly to sift the last strong hold of the learned botanists, that "there is a third class of plants, having all the blossoms perfect in both male and female organs, and bearing a full crop of perfect fruit; and that pistillate plants become staminate by running." [No; that some perfect blossomed sorts have a tendency to vary into barren forms.—ED.] Among these, are ranked the Boston Pine, Downton, Swainstone Seedling, Keen's Seedling, Ross' Phœnix, Buist's Seedling, Emperor, Myatt's Pine, Wilmot's Superb, British Queen, Grove End Scarlet, Burr's old Seedling, and many others. Keen and Wilmot made fortunes by their seedlings, yet not one of the whole class, is possessed of any value with us, further than as an impregnator. A perfect plant, except of the White and Alpines, I never expect to see. I have this season, thoroughly tested this strong hold. I obtained the Swainstone and Ross' Phœnix from you. Neither of them will, in an average of years, under any cultivation, produce perfect fruit, on one-third of the blossoms, and a large portion will be entirely defective in female organs, and entirely barren. The fruit of the Swainstone, as far as it bears, is of the largest size. A plant is occasionally produced, with blossoms on the same stem, wholly defective in male organs, and the residue more or less perfect in both organs. In cultivation, I have seen one only, the Duke of Kent, that bears a full crop. The fruit of this plant is small.

A seedling may be produced, of this character, from the seed of a large fruited variety, of great value, and I would recommend persons to turn their attention to the subject. *Eberlin's Seedling*, (a new western sort,) is of this character. Such a plant could not be called a PERFECT plant; yet it might produce a full crop of fruit, as the pistillates would be impregnated by their staminate neighbors, on the same or adjoining stem. The great advantage would be, that in planting staminates with pistillates, the former increase so rapidly, having no fruit to bear, that they soon crowd the pistillates out of the bed.

About the true character of the strawberry plant, we shall no longer dispute; and our only surprise will be, that our horticulturists could have raised seedlings, and have cultivated them for years, for sale, and be totally ignorant of the true character of their own progeny. Our intelligent friend BUIST, of Philadelphia, required but a single season, after his attention was drawn to the subject, fully to understand and admit my propositions. I name this, that those who still want faith may be led to seek the truth. One cause, why you at the east are so slow of belief, is, that you are seldom willing to be instructed from the backwoods. Yet here is the very place where you should look for new discoveries in agriculture and horticulture. You are slow in changing long settled opinions. You

rely on books, more than personal observation. In these benighted regions, as few of us can read, we are compelled to rely on observation, and consequently form new opinions, and may possibly occasionally get the start of book learning. LINNÆUS told you, "the blossom of the strawberry plant is always perfect, in both male and female organs, and occasional failures in blossoms to bear fruit, are the consequence of a late frost." Botanists have never given the subject personal observation, and have repeated the same doctrine. Most of those who attend to the cultivation, have no botanical knowledge. Finding their plants become barren, they neglect them. And so wedded are many to old theories, that even where they raise seedlings for sale, they cannot be made to believe, that *pistillates* would not, in a thousand years, produce a single perfect fruit, if separated from all others; and that *staminates* will not, in an average of years, bear one-third of a crop. The rage now is for new fruits and flowers, and our horticultural societies will be of little value, till they promptly examine all new plants, and report on their character and value. It would, to the community, be a great saving of time and labor. The course of our societies is the reverse of this. "A hasty plate" of new seedling strawberries is sent them. They "hastily" report, not only on their size and quality, but their bearing character. True, they occasionally make small mistakes. Persons in sending JAQUES' and MOTTIER'S seedlings to one of your societies, omitted to send any sugar. They were "hastily" reported sour and worthless. Not satisfied with this cut-throat decision, Mr. JAQUES sent a second plate, and added sugar; and they were reported as "first rate." MOTTIER was in the backwoods, and had not time to send sugar, and the doom of his seedling is sealed. Yet his seedling is of süperior flavor, being from the old Hudson, and not readily distinguished from it. Fifty years ago, scarcely any other was known in New-York and Philadelphia; and in flavor, where sugar is plenty, it has no superior. It has always been considered the best market strawberry. One of our nurserymen lately imported for sale, one of your perfect eastern seedlings, that will not average one-fourth of a crop of perfect fruit. I expostulated with him. His reply was, "I know it is worthless, but my customers will have it, as it is vouched for by eastern horticultural societies."

We shall soon know what improvement, if any, can be made in raising new varieties of strawberries from seed. Some of our intelligent horticulturists are extensively engaged in it, as a matter of amusement. But little has, in my opinion, been done, either in Europe or America, with the exception of Hovey's Seedling. This, thus far, stands unrivalled for size. A new seedling, raised in this city, by Mr. TAYLOR, as far as I can judge from a single season, ranks next to it. It is purely pistillate, though supposed by him to be perfect. One of my tenants, Mr. AVOY, a gardener of long experience, has upwards of one thousand seedlings, principally from seed of the largest fruited staminates; a portion of which are now in fruit. Their present location is in poor soil. They promise to rival the Hovey in size. Yearly, large sums are expended in importing and extending the cultivation of new fruits. We yearly import new seedling strawberries from England, that are highly praised and extensively spread through the country, that prove to be of no value. We are then told, they do not suit our climate. They should be scarce in any climate. Would it not be advisable for every horti-

cultural society, to have a fruit committee, whose duty it should be to examine all new fruits, and report on their quality and bearing character ?

I have said that the English staminate strawberries, (or rather what are erroneously called perfect plants,) are of no value in the United States, except as impregnators to pistillates. I say this, in complaisance to our English gardeners, who now admit their staminates are bad bearers in America, but contend that in England all the blossoms were perfect in both organs. In this, they mistake. In the cool climate of England, staminates may bear better than with us. But what confirms me in my opinion is, that some English gardeners east, who forced the Keen seedling about Boston, assured me that, with them, it bore a full crop. They will not know what a full crop means, till they visit the strawberry grounds of Mr. CULBERTSON, and in a favorable season, see him pick *one hundred and twenty bushels in a single day.* Mrs. LOUDERBACK, who sells large quantities of the fruit, and also preserves it, observed to me, that she saw more strawberries in a single day, for sale in Cincinnati, than she saw in Philadelphia during a season. That she there, for the largest size for preserving, paid fifty cents per quart. It is never safe to speak of the bearing character of what you term perfect plants, from a single year's experience, as the blossoms throw out the pistils some seasons much better than usual. For it is in pistils they are defective. Never in stamens.

You may, within the next five years, expect a great reduction in the price of Newark cider, turneps and green corn, (the rudiments of a good deal of champagne sold in this country.) By that time, there will be numerous establishments in our city for the manufacture of champagne wine, from the juice of the grape. And it will possess a high character, and command a high price, if we can overcome the impression, that no part of the United States is a wine region, and do not follow eastern examples, and also manufacture from cider, turneps and green corn. The cultivation of the grape, is rapidly extending in this vicinity ; and our German vine dressers must exert all their care and skill. If they do not, from present appearances, some of our American grape growers will surpass them in the quantity of wine made to the acre, and its quality.

Yours, with regard,

N. LONGWORTH.

Cincinnati, O., May 29, 1847.

MR. LONGWORTH's letter is interesting to us, mainly because it is more definite than usual, about the classes of strawberries.

He says, " the English staminate strawberries, (or rather those erroneously called perfect plants,) are of no value in the United States, except as impregnators to pistillates." Leaving out the English *White* and *Red Woods*, and the *Alpines*, which, we believe, our correspondent admits to bear perfect blossoms, this divides all other strawberries into two classes, viz: those bearing purely *pistillate* blossoms, such as *Hovey's seedling*, (as generally known,) *Black Prince, Hudson*, etc. ; and those with *staminate* blossoms, i. e., containing stamens, more or less abundant, as well as pistils.

What we have hitherto meant, when using the term *staminate*, is a strawberry blossom in which the stamens chiefly are developed, and the pistils only imperfectly. And we have called those blossoms *perfect*, in which the normal proportion of pistils and stamens is preserved, such as the *Duke of Kent, Early Scarlet, Alpines, English Woods*, etc. We used these terms, because

experience has taught us that at least all these sorts are permanent in the habit of bearing blossoms of the same character, and good crops of fruit.

Besides this, we are pretty well satisfied, from careful observation, (and not from theory,) that many of those kinds of Pine strawberry, (such as *Keen's Seedling*, *Ross' Phœnix*, etc.,) originally bearing blossoms perfect in their proportion of stamens and pistils, are more or less liable to become unproductive by running out, or varying from their original form. Still more recent examination of the subject, leads us to think that this variation usually consists in the *pistils* becoming abortive or imperfect.

This tendency to variation renders these stamen and pistil bearing varieties (staminates of Mr. LONGWORTH,) much less certainly to be depended on for a crop than those varieties, the blossoms of which bear only pistils—*pistillate* sorts.

So far, Mr. LONGWORTH and ourselves differ so little, that the difference is of no practical value.

When, however, he says that no staminate sorts, as for example, *Keen's Seedling*, *Ross' Phœnix*, *Swainstone's*, etc., will ever bear good crops, we must be allowed to dissent, because we, as well as thousands of other cultivators, have often seen very fine crops of these varieties.

Mr. LONGWORTH says truly, that KEEN, and other noted English market growers of the strawberry, have made fortunes by these sorts. Every one knows that "Keen's Seedling," (a fine old variety that in our climate is not so productive as abroad, because the pistillate portion of its blossoms often becomes abortive,) has held its place in Great Britain at the head of all strawberries for general culture, for the last fifteen years. It is as evident, as that 2 and 2 are 4, that the English, who are by no means novices in gardening, would not cultivate for market, year after year, sorts that do not bear one-third of a crop; and that a "barren staminate" sort, like *Keen's Seedling*, would not hold the first rank against dozens of new sorts raised and disseminated every year, if it had not *productiveness* among its characteristic qualities.

On the other hand, and this is the real pith of the matter, when Mr. LONGWORTH says that *pistillate varieties* of the Pine strawberry, properly cultivated, yield far larger and more certain crops than any others, he is undoubtedly quite correct. This is the great practical turning point of the Cincinnati mode of strawberry culture, made public by Mr. LONGWORTH. It is not that the English growers, or staminate sorts, do not produce good crops, but that the Cincinnati growers, and their mode of choosing only *pistillate* sorts, (with a small proportion of stamen bearing plants near by,) always give *enormous crops*—far exceeding any hitherto grown. The fact that the market of Cincinnati was last year supplied with about *four thousand bushels of strawberries*, at an average of six cents a quart* — the largest and cheapest supply known in any city in the world, is the best evidence of the extraordinary result of their mode of rejecting all but pistillate sorts — with a small admixture of the staminates to fertilize them.—ED.

*We learn that it is judged the total amount offered in that market this year will exceed 6,000 bushels!

DESCRIPTIONS OF TWO FINE NEW AMERICAN APPLES.

THE number of native apples of good quality and local reputation, is increasing so rapidly, from the very great adaptation of our climate and soil to this fruit, and from the great number of seedling trees that have been planted in orchards in all parts, that the result is one almost perplexing to the collector.

With the large variety of apples of high excellence, already in cultivation, it is the duty of pomologists to exercise a more than usually severe scrutiny, and judge from a high criterion, in admitting into general cultivation more new sorts. However valuable certain varieties may be esteemed by those not familiar with *the best*, it is evident, that at the present moment, we want no more new apples of second quality. All candidates for the critical favor of the pomologist, and the general acceptance of the cultivator, ought to possess the aggregate of qualities that belongs to fruits of the first class only.

Among the great number of new sorts that have come under our notice, within the last two years, we have found very few indeed, so fully entitled to high praise as the two varieties we are now about to describe.

I. THE McCLELLAN APPLE.

Martin Apple, of some.

A beautiful and most excellent dessert apple, a native of Woodstock, Connecticut. It is remarkable for its beautiful and regular form, its fair and smooth skin, the delicacy and excellence of its flavor. Compared with many of the finest *dessert* apples, it will be found superior to most of them, and worthy of a place, therefore, in every small collection; while its regular and great productiveness also renders it highly valuable as an orchard apple.

Fruit of medium size, unusually regular and round in shape. Skin very smooth, nearly covered with stripes and marblings of lively red, on a bright straw-colored ground. Stalk short, and rather slender, not very deeply planted in a very smooth, round cavity. Calyx short, nearly closed, set in a basin of moderate depth, and very slightly plaited. Seeds small. Flesh white, fine-grained, very tender and juicy, with an exceedingly sprightly, mild and agreeable flavor—scarcely sub-acid. Season December to March.

This fine native fruit was first presented

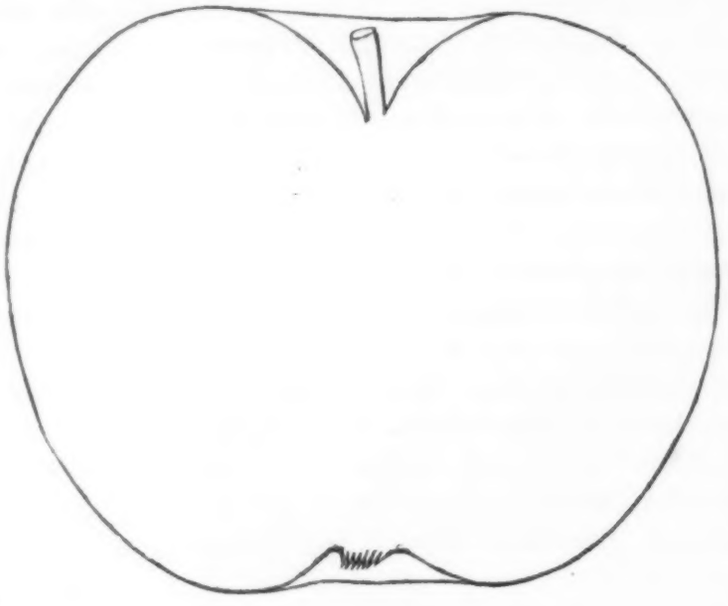


Fig. 5. The McClellan Apple.

to our notice, a couple of years ago, by the Rev. H. S. RAMSDELL, of Thompson, Connecticut, an enthusiastic cultivator of fruit. We also received specimens again last autumn, which we kept till March. Mr. RAMSDELL informs us that the original tree, now dead, stood upon a farm in Woodstock, Ct., in the midst of a "cider orchard," all seedling trees. This orchard was planted about 70 years ago, but it is now uncertain by whom, as the property changed owners several times. One of the owners, Mr. JOHN MARTIN, about thirty years since, presented grafts of the apple in question to his neighbor, Major JOHN MCCLELLAN. With these grafts, the latter immediately produced a young tree which has been in constant bearing twenty years, and is the oldest tree of the kind now in existence. Very soon after Mr. MARTIN presented the variety, as something worthy of cultivation, to Major MCCLELLAN, he sold the farm on which the original tree stood, and it was cut down by the purchaser.

"Major MCCLELLAN," as Mr. RAMSDELL informs us, considers this variety as good a bearer as the *Rhode Island Greening* and *Roxbury Russet*. Indeed in his soil "it has borne good crops in seasons when these varieties have failed. I have also carefully watched it for the last few years, and find that it gives crops of fine fruit when the usual apple crop is exceedingly small. Major MCCLELLAN has a number of small trees, each of which bore from one-half a bushel to a bushel last year, which proves that it also comes early into a productive state. The fruit is now known and much sought after here, as the '*McClellan Apple*,' and taking into account its beauty, size, flavor and productiveness, I do not know its equal among apples of the same season. The trees in the nursery are of moderate growth."

II. THE HAWLEY APPLE.

A remarkably fine autumn apple, a native of Columbia county, N. Y.; large, handsome, productive, and among the finest flavored autumn varieties that we have yet tasted. It perhaps more nearly resembles in flavor that fine old apple, the genuine "Fall Pippin," than any other, though quite distinct in appearance, and more productive in the orchard.

Fruit large, roundish, and varying in out-

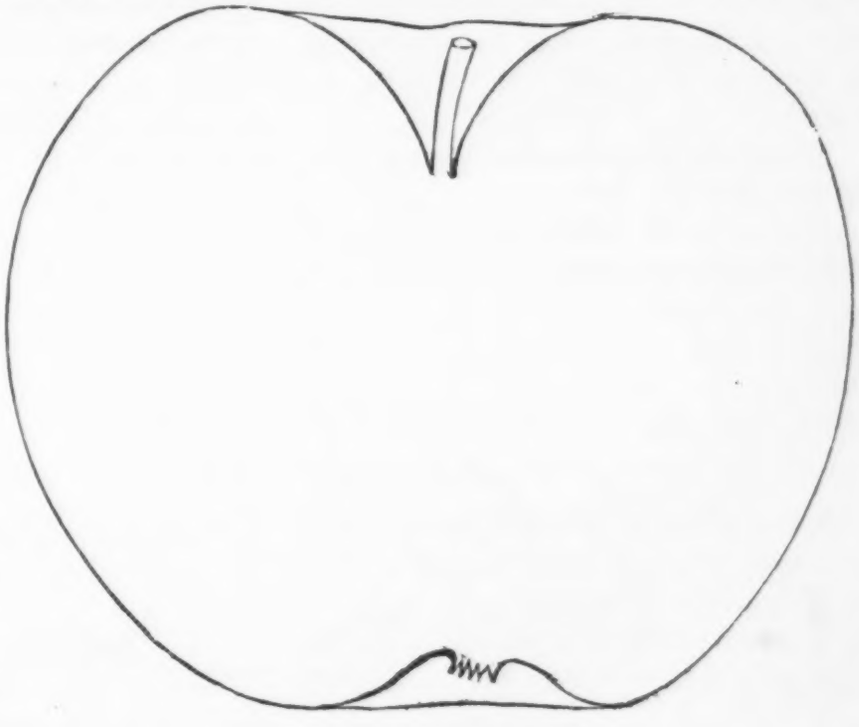


Fig. 6. The Hawley Apple.

line in different specimens, from a slightly flattened form to one somewhat conical. Its surface is smooth, and slightly oily; the core is large and hollow, in which the seeds rattle. The skin is pale yellowish-green at first, becoming pale golden yellow at maturity, and sprinkled with a few scattered brown dots. Stalk slender, from three-fourths to an inch long, planted in a deep and wide cavity, (from which often extends a faint mark or line each way, halving the fruit.) Calyx rather small, partly closed, set in a slightly plaited basin of moderate depth. Flesh yellowish-white, fine-grained, tender, with a rich sub-acid flavor. Season, October and November. The tree is of moderate growth in the nursery, but in the orchard forms a well shaped, spreading head, and bears good crops annually.

Gen. E. W. LEAVENWORTH, of Syracuse, N. Y., had the kindness, last autumn, to make us acquainted with this valuable fruit, which is now rapidly becoming a favorite in this State. In a letter from him, now before us, he gives the following authentic account of its origin:

"The *history* of this tree, is substantially as follows:

"MATTHEW HAWLEY removed from Old Milford, in Connecticut, to New-Canaan, in Columbia county, New-York, nearly a century ago. As usual, at that time, with emigrating settlers, he took with him *apple seeds*, from which he raised and planted an orchard of seedling trees on his farm, in Canaan. Among them, was the tree in question. The farm afterwards passed to his son DANIEL, and is now owned by THOMAS HAWLEY, the son of Daniel Hawley. The fruit early attracted the attention of amateurs, and for forty years past, it has been more or less propagated, both there and elsewhere.

"It is now cultivated near Canaan Four Corners, by Messrs. THOMAS HAWLEY, EDWIN B. WILLIAMS, JAS. HAMILTON, and various others, as well as by several orchardists in Onondaga and Cayuga counties. The original tree has been dead some ten or twelve years.

"I am informed that the trees grow large and strong, and bear abundant crops every year.

"A person named DOUSE, lived on a farm near Mr. HAWLEY's, some forty years since, and had one or more of these trees on his farm, taken from the Hawley tree. Hence the name of Douse, or Dow's apple, which it bears in some places.

Your ob't servant,

E. W. LEAVENWORTH."

ARBORICULTURAL GOSSIP.

BY J. JAY SMITH, PHILADELPHIA.

I AM delighted to see influences from the most influential quarter—a journal with the circulation of the Horticulturist—brought to bear on the tree-planting taste of the country at large. I know that just now almost the whole country is alive with orchard and fruit garden planting—and that fruit trees are the theme that occupy the great mass of horticultural readers. This, however, is only the necessary first step, and the extensive collection and planting of all fine and rare ornamental trees, Cedars

of Lebanon, Araucarias, and the like, will as surely follow as the blossom follows the bud.

With all our truly fine sylvan scenery, there are none of your readers, who have not seen the thing for themselves, that know how properly to rate the enjoyment of those collections of fine ornamental trees which the English make at their country places, under the name of ARBORETUMS. It is for a country residence, what a *museum*, or rich collection in natural history or art, is for a town house; a source of interest perpetual and unvarying. Many a person (and there are, I am sorry to say, such in all countries,) to whom trees are only *trees*—that is, green things in the landscape, in which they perceive little distinction—are immediately struck and interested in a country place by an *arboretum*—that is, a collection of trees properly arranged on a large lawn, each genus, with all its varieties, near each other, so as to show off their contrasts and individualities to the highest advantage. Such a park or lawn soon seizes upon the mind and attracts it; almost insensibly one is led to compare forms and developments; and very quickly he who knew little and cared less about trees, finds himself acquiring the acquaintance of the *most distinguished botanical families!*

I know very well that my impatient countrymen, ever berating time for the slowness (!) with which his wheel revolves, plant Paulownias, Ailanthus and Silver poplars, that grow ten feet in a year (and are pigmies, after all,) more willingly than Cedars of Lebanon, that grow only a foot in a season, and become giants at last. But the number of patient ones will only increase with the gross number of planters. In the mean time, those who begin first will be the first to lay the foundation for great results.

We know little of the matter of arboricultural taste in the United States. In England it is carried to a perfect passion. Not only entire collections are made in certain places, but, in many places, particular genera of trees are chosen, and every known species of interest being assembled, one sees the whole beauty of that class of vegetable forms, more thoroughly than in any other spot in the world. And again, every planter will not have space for a world's park-collection, but may be able to exhibit a single family of trees, or one genus at least, in all their beauty and perfection. Thus we see in England *Thorneries*—collections of all the known kinds of Hawthorns; *Pinetums*–assemblages of every procurable member of the *pine* family, etc.

Perhaps the most celebrated *Pinetum* in the world, as you know, is that at *Dropmore*, a few miles from Windsor Castle, the seat of the late Lord GRENVILLE, by whom it was commenced—the design having been pursued to this day by his enthusiastic widow, LADY GRENVILLE. It was one of the places which, with my own *penchant* for trees, I most desired to see, and therefore one that I did not fail to visit, when I was in that country, in 1845.

It would be quite impossible for me to give your readers, in my present brief space, any correct idea of the very extraordinary wealth of LADY GRENVILLE's place in trees. There are, in the first place, grand and gigantic beeches and oaks, several hundred years old, huge, gnarled, and picturesque to the highest degree. Then there is a great *double avenue* of immense Cedars of Lebanon, such as almost lift a genuine tree-lover off his feet, with their majesty and beauty.

But the *Pinetum* at Dropmore, is the glory of the place. It contains one or more specimens, in groups, of every cone-bearing tree that will endure the climate of Great Britain—one, on the whole, more favorable to the fir and pine tribe, than any other in the world. I send you a list of all the species of trees in this Pinetum [which we regret to be obliged to omit for want of room—Ed.] amounting to about 170 distinct species. Of course, among them are the Araucaria imbricata and Deodar cedar, the two largest specimens in Europe. The great *Douglass Pine*, of California, which grows in Western America to the height of 300 feet, has here already reached 45 feet. It is one of the most striking and beautiful vegetable productions I ever gazed upon.

The site of this *Pinetum* was, I was told, originally an old wet moor. It is now the site of a perfectly fairy garden, and the most superb lawns.

We have but little idea in this country of the perfection of the English gardening—and I may say, especially *tree culture.* I saw, while at Dropmore, something in this way, that both amused and instructed me. One or two of the trees in the Pinetum were perhaps a little less luxuriant than the rest, though by no means unhealthy. But it was playing the laggard, and the gardener, who had caught it napping, was bringing it to reason by a little extra feeding.

His proceeding was a good deal after this fashion: Finding out in exactly what direction each large root radiated from the main centre, he carried out the radiating line on the surface of the ground, say thirty or forty feet from the trunk, on all sides. Beginning at the outer ends of these lines—shooting out like the spokes of a wheel, 40 feet from the tree—he opened trenches three feet deep towards the tree, till he reached the spot where he met the ends of the young roots. This course was pursued all round the tree, at spaces of a few feet apart—or wherever it was seen that a set of roots extended. These trenches were soon cleared of the common soil, and filled with rich compost and "maiden loam." This, I was told, and I could not doubt it for a moment, would soon bring the tardy tree to a state of luxuriance quite equal to that of any of its neighbors. But how many persons in this country would have dreamed of laying down whole *canals and feeders* of nourishment for the roots of a favorite ornamental tree! Yet if luxuriance is beautiful, and rapid growth desirable, the trouble is not thrown away.

But a word about home arboriculture. There are in the environs of this city, as I have had the pleasure of pointing out to you, many instances of good taste and zeal in the planting of rare and fine trees, that are worthy of being seen and chronicled. I must send you, from time to time, as I have leisure to measure them, the accurate dimensions of some of the most striking trees now existing about Philadelphia. At present I can only give you the following, which have been measured very recently, and especially to show your readers what has been done at home.

Virgilia. (*Cladastrus tinctoria*, Torrey & Gray.) There is a very noble specimen of the Kentucky Virgilia (V. lutea of the old botanists,) in the grounds of Mrs. Price, near Germantown. Its height is 46 ft. 8 in. Its stem measures 6 ft. 7 in. in girth at the ground, and 4 ft. 1 in. at six feet above the ground.

Tree Box. (*Buxus arborescens.*) The great Tree Box on Judge Peters' place, about three miles from this city, measures 33 ft. 6 in. in height, and is 5 ft. 4 in. in girth at six inches from the ground. It there forks into four limbs, the largest of

which, at eighteen inches from the ground, is 3 ft. 1 in. in circumference. This is the largest box tree I have ever heard of. In the same grounds is the WASHINGTON CHESTNUT. This celebrated tree is of the large fruited variety, planted by Washington. Its dimensions are, height 52 ft. 4 in.; circumference 10 ft. 1 in. A BEACH tree near by, one of the finest and most graceful ones I ever saw, measures 87 ft. 6 in. in height, and 7 ft. 2 in. in girth.

MAGNOLIA GRANDIFLORA.—A specimen of this fine evergreen, now growing in the grounds of Laurel Hill cemetry, where it was removed from the McArran's garden, measures 17 ft. 4 in. in height; 13 inches in circumference at the ground.

More accounts of our fine arboricultural specimens in my next.

Yours, very truly,

J. JAY SMITH.

P. S. My *Virgilia* trees are this day in superb bloom. Why is this most beautiful hardy western tree so rare? [Why, indeed? We know nothing of the kind more charming than this fine tree.—ED.]

THE NEW JAPAN LILIES.

BY THE PRESIDENT OF THE MASSACHUSETTS HORTICULTURAL SOCIETY.

THE LILY, from time immemorial, has been the theme of the poet, and the subject of sweet allusions by men of taste and learning; frequently and beautifully is it referred to in the Scriptures, for its exquisite fragrance and loveliness, and for *magnificence*, Divine authority has declared "that SOLOMON, in all his glory, was not arrayed like one of these."

It is not my purpose, at present, to inquire whether the species or variety thus sublimely spoken of, was the *Lily of the Valley*, belonging to the genus Convallaria, as some have supposed; the *Lilium candidum*, of Pliny, or the splendid tribe with which this chapter is introduced to the notice of your readers.

Of the many remarkable plants imported into Europe, within the last half century, few can claim such a pre-eminence for beauty, as the Lilies discovered by Dr. VON SIEBOLD, during his researches in Japan, in the years 1831 to 1833; and it is no exaggeration to state, that none have since been introduced, more deservedly popular, or more highly attractive.

Dr. VON SIEBOLD informs us, in his *Flora Japonica*, that he brought with him, from Japan, more than twenty kinds of Lilies, the most conspicuous of which, however, are the *Lilium speciosum*, (sometimes called *rubrum*,) the *L. lancifolium album*, and the *L. lancifolium punctatum*, or *roseum*. All these have reflexed petals, and may be briefly described as follows:

LILIUM SPECIOSUM.

Showy Crimson Japan Lily.

Flower, ground color, clear rose, shading to white, covered with numerous small projections of bright crimson, and which gives it the appearance, as Dr. LINDLEY remarks, of being "all rugged, with rubies and garnets and crystal points;" a plant of two to three feet in height.

LILIUM LANCIFOLIUM ALBUM.

White Lance-leaved Lily.

Flower, pure virgin white, crested with the same peculiar projections as the former species, but these are without color, and

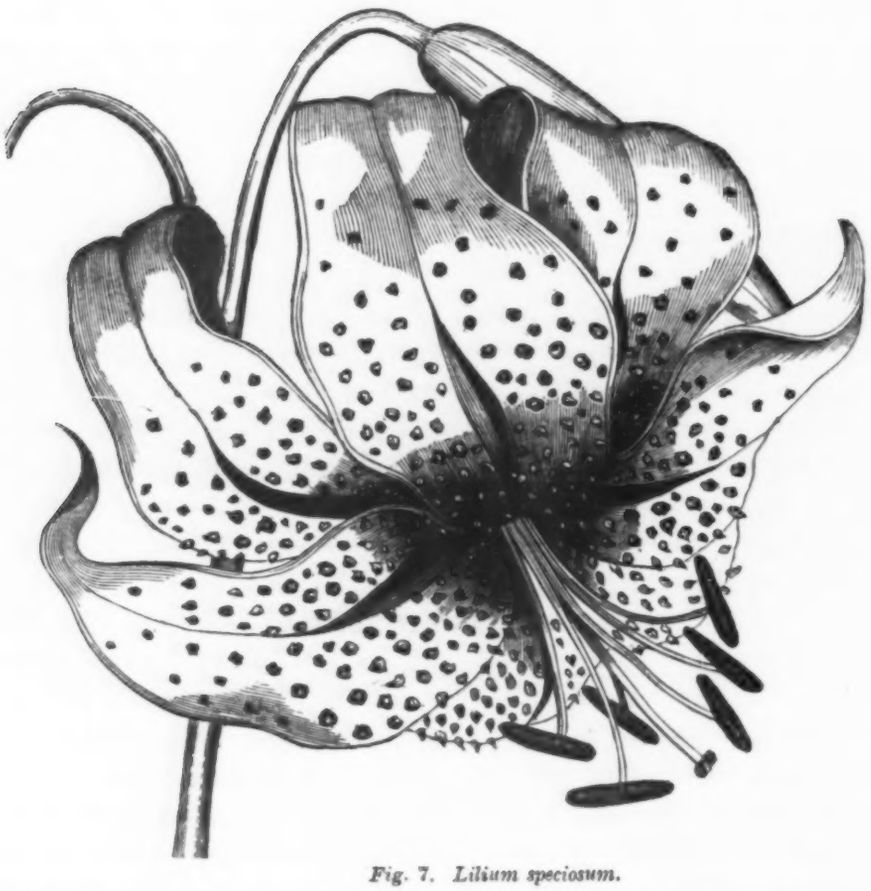


Fig. 7. Lilium speciosum.

which may be compared to frost work and snowy stalactites; grows to the height of three or four feet.

LILIUM LANCIFOLIUM PUNCTATUM, OR ROSEUM.
Spotted Lance-leaved Lily.

Flower large, white; the petals studded with pale rose or blush projections, and beautifully spotted with rose-color. The plant is of more robust habit than either of the sorts named above, often attaining to the height of four or five feet.

The virgin whiteness of the *album*, the roseate leopard-like spotting of the *punctatum*, and the jewel-like brilliancy of the *speciosum*, *all* redolent with the fragrance of Arabian spices, will ever render these, objects of especial favor and admiration, and place them among the very choicest plants of the conservatory or flower garden.

Hybrids—The strong development of the stamens and pistils of the Lily tribe, almost directly invites the skill of the cultivator to cross impregnations. A multitude of seedlings have been produced in this way, from these Japan Lilies. In my own collection, I have now about 150 in bud, from which it is hoped some good and distinct varieties may be obtained. Of the seedlings that have already bloomed, those raised from *L. speciosum*, fertilized by *L. L. album*, and from *L. L. album*, by *L. speciosum*, have been almost identical in character with the former red species, varying only in the petals displaying a clearer delineation of the white. All efforts to interbreed these sorts with *Lilium candidum*, (common white Lily,) *L. tigrinum*, *L. Philadelphicum*, *L. superbum*, and *L. Canadense*, have proved abortive.

Soil.—In cultivating these new Lilies, the following soil will be found thoroughly adapted: Two parts from an old hot-bed, composed of leaves and horse manure, at least two years old; one part rotten sods, or any good mellow loam; one part sandy peat; [if not sandy, it will be well to add a little sand.]

Potting and shifting the bulbs.—About the middle of January, these will commence vegetating, when they should be potted in small pots, repotting or shifting them to a larger size, every two months, or as often as the pots are filled with roots —always remembering that perfect drainage, and plenty of it, are indispensable to success.

Propagation.—By *seeds*, which are obtained in abundance in this climate, if the pistils are fertilized. These should be sown as soon as ripe, in shallow pans, in which they may remain for one or two years; they should then be transferred to six inch pots, four to six bulbs around the edges of the same—and finally, singly, in pots for flowering.

By *offsetts and by young bulbs.* — These are formed at the crown of the old bulb, and also at the axils of the leaves. Their growth is accelerated by the placing of pieces of peat around the stem.

By *scales*, from the outside of the bulb, potted in peat and sand, and subjected to a slight heat; these do not vegetate rapidly, but eventually make good bulbs, and those scales may be divided longitudinally into two or three parts, with the knife, each one of which will form at the bottom a new plant.

Hardiness and adaptation to the open ground.—That the Japan Lilies and their offspring, may become tenants of our gardens, and sufficiently hardy to endure our climate, is much to be desired. The scarcity and high price of these have, until recently, been a hindrance to much experience in this respect. I can, however, state some facts, which give great reason to expect that they or their hybrids will prove so. Soon after the introduction of the *L. speciosum*, a bulb stood the winter perfectly well, protected only by a pot, in the garden of a gentleman in this city—and I learn that one of the same sort has, for two or three years, remained uninjured in a garden in the city of New-York. My own experience is quite encouraging. Eighteen bulbs were planted in the open ground last November, in a bed of Tree Pæonias, between the rows; these were covered with four inches of peat, and when the ground closed up, about the same depth of seaweed was added to the covering; *every bulb* is alive, and now making a vigorous growth. It is sufficiently evident, that if the Japan Lilies prove hardy, their culture in the open ground, and in a deep rich border, will be of the easiest description.

General treatment.—I am now supposing the course of in-door culture. The dormant bulbs having been potted, they should be placed in a forcing pit, with a little gentle heat, removing them as near to the light as possible, as soon as the leaves begin to unfold themselves; water must be given sparingly during the first period of growth, or until new roots have been formed; after which, it may be administered plentifully whenever the surface of the soil becomes dry, remembering the good old rule, that the supply of water must always be in proportion to the supply of solar light.

A flue in the green-house will do very well, provided the pots are kept constantly moist. In the early stages of their growth, a warm, humid atmosphere is particularly favorable to a vigorous start; this will be

seen by the mesh of white roots emitted on the surface of the soil, and which, with those below, are the greedy recipients of any reasonable quantity of richness that may be administered in the form of liquid manure or guano; under these influences and judicious shiftings of the bulbs to larger pots, the luxuriance is truly astonishing, strong bulbs throwing up thick, robust stems of three to four feet, covered with a dense white bloom, alike significant of the adaptation of the soil and temperature in which they delight to revel.

When the flower buds are developed, the Lilies should be removed to the temperature of the green-house, the nearer the light the better. The bloom being past, the plants should be watered more sparingly, and when a disposition for dormancy is evinced, by the waning yellow foliage, this may be entirely dispensed with—the stalks cut down, the pots removed to the potting bed, or a place where they are dry or protected against frost, there to remain until the appropriate season for recommencing operations. In this state of rest, the bulbs should not be taken out of the pots, but it is well to examine them once a month, and if very dry, to give them a *careful* watering. Of the ultimate hardiness and adaptation of the Japan Lilies and their offspring to our gardens, I intend to satisfy myself, by experiments, the ensuing year.

Yours, M. P. Wilder.

Boston, June 10, 1847.

Remarks.—We are greatly indebted to Col. Wilder, for the foregoing excellent practical notes, which he has given our readers, regarding the Japan Lilies — perhaps the finest of all the present floral novelties of the day.

Col. Wilder has, we believe, the largest collection of these Lilies in the country, having not only been among the first to introduce them, but also equally successful in their cultivation. We had the pleasure of seeing some of the cross-bred seedlings raised by him, at an exhibition of the Massachusetts Society, which were, if possible, more beautiful than any of the original species; and we anticipate, among those of his own production, now about to bloom for the first time, some varieties of great delicacy and brilliancy.

We understand that the Japan Lilies produce seed more freely in the United States than in European gardens. It is also not a little remarkable, as we believe there is no parallel to it in Europe, that all the hybrids produced by Col. Wilder, that have yet flowered, have a strong resemblance to the rarest and finest species—*Lilium speciosum.*

We have only to add our testimony, from experience here last winter, that these Lilies have proved hardy in the open border, with a slight covering of earth only; and there can scarcely be a doubt that they will soon take their place among the loveliest ornaments of the parterre.—Ed.

Invigorating Fruit Trees.—The papers often contain notices of the advantages of applying ashes, charcoal, lime, &c., to fruit trees, to increase their growth; these are often beneficial in moderate quantities, and occasionally eminently so in certain conditions of the tree or soil; but the treatment which is most strikingly beneficial, and in the greatest number of cases, is to make the soil deep and rich, and to keep it clean and mellow, by constant cultivation. Hence the selection of stony ground is bad policy.

THE CLOTH OF GOLD ROSE.

BY THE ASSISTANT BOTANIST TO THE U. S. EXPLORING EXPEDITION, WASHINGTON.

In several numbers of the Horticulturist, I have noticed that strictures against, and on the other hand, somewhat favorable remarks, have been made on this Rose, by different individuals; but your intelligent correspondent, Dr. Valk, in the last number, page 574, has endeavored to fix its position or standing among Roses, by defining its character; and I must confess that the greater portion of his observations are at variance with my own, as also that of several Rose-growers in this section of the country.

I would remark, that my observations extend as far back as October, 1845, at which time I came in possession of a small plant of it, about six inches high; this, the following May, was planted in the open ground in an exposed situation, free from any erection, the soil a stiff yellow loam, well incorporated with *charcoal* dust and *wood ashes*. By September, many shoots to the height of six feet, had been made; at this time, some of the lateral ones produced from one to two flowers, but not more than eight or ten on the plant altogether. My protection for Roses during the winter, consisting of a light covering of *Cedar* branches, not intended to resist the cold, but rather to prevent sudden thawings of the shoots taking place. This plant, with two others, budded in the autumn of 1845 on seedling *Noisette* stocks, had last autumn made shoots from eight to ten feet high; many of these half inch in diameter near the base. These plants, in November and October, produced from ten to fifteen flowers each—the color, at this season, nearly equal to *Harrisonii*, or one shade deeper than what they now are. The points of these long shoots, I tongued and laid down in the usual way, on the 23d of September, in a prepared vegetable compost; and being well rooted by the 15th of November, the layers were potted in eight inch pots, (the plants being now three feet high;) these were placed in a cold pit during the winter, and this spring (in April) they were garlanded with their large yellow flowers, from the top down to the pot, many of them having six to eight of their flowers expanded at one time, and were the admiration of all who beheld them.

The slight cover already noticed, was removed from the three old plants towards the close of March; the tender shoots made late in autumn, were then shortened back a few inches; no other pruning being deemed necessary or proper. The strong shoots were then tied to stakes seven feet high, which the plants now entirely overtop. Like all other Roses here, the first growth made, was injured by frost, but independent of that mishap, these plants have had, since the 25th of last month, a succession of fine flowers, from ten to twelve in number, constantly in bloom, each blossom having a diameter from three to four inches, with from three to five of such flowers in a cluster.

S. D. Morton, Esq., of Petersburg, Virginia, a few weeks ago, had a plant of the *Cloth of Gold*, with from forty to fifty flowers on it at one time; and Mr. Wm. Cammack, florist of this city, exposed for sale in market early in March, small plants of it, with from three to five full expanded flowers. A great number of small plants were also brought from Baltimore this spring, and sold at auction here, bringing

very high prices; in fact, it cannot, as yet, be propagated in sufficient quantities to supply the demand.

Having given my observations, as regards the growth of this Rose here, and its prolific qualities as a bloomer, it may not be out of place to say something definite as to the form and color of its flowers, &c. &c.

Cloth of Gold Rose, (*Noisette chromatella.*) Plant of luxuriant growth, making shoots from six to eight feet the first year, if grown in rich heavy soil; flowers well in pots, particularly if the plants be layers of the previous autumn, and gently forced towards spring; foliage large and spreading; leaflets ovate lanceolate, slightly acuminate, coreaceous, finely serrated, glossy above, glaucous beneath, three and a half inches long, by two broad, of a dark green tint; costa and petiole beset with strong reflexed spines, as is also the stem; flowers large, three inches in diameter, (I have often seen them four,) very double, petals firm, particularly the two outer rows, which are of a round form, guarding the interior ones well; these are smaller, more pointed, a little reflexed at the apex, becoming more irregular in their arrangement towards the centre of the flower, lasting long; not so fugacious as *Noisette solfaterre;* color, a fine rich yellow, about one shade lighter than *Harrisonii;* blooms freely in early summer, and late autumn; frequently transient flowers between these periods; equally as hardy as *Noisettes Lamarque* and *Solfaterre;* bears forcing well, but the color of the flowers, in that case, is not so deep as when grown in the open air. This variety is well adapted for training against trellis work, or as a standard in the border or lawn.

The *Cloth of Gold*, delights in a rich, loamy soil, and with us, a very slight protection during the winter. The knife should be used sparingly; I believe, indeed, that this instrument has, in two ways, been the greatest enemy this Rose has had to contend against: first, in the hands of the unskilful pruner, and that of the propagator, cutting it into inches to make plants to supply demands, and turn in the dollar, and then in sharpening the edge of his pen to let the world know how injudicious he had been in the maiming of his favorite. Something farther should be added, respecting a deficiency of that rare virtue—*patience;* a little of which, moderately exercised, along with good culture, will, I hesitate not to say, place the character of the *Cloth of Gold* Rose in as high a *niche*, if not higher, in the estimation of its most sanguine admirers and disappointed suitors, than it stood when first introduced into this country. Wm. D. Brackenridge.

.....

[From all parts of the *south*, where it appears to grow with the greatest luxuriance, we have accounts of the great beauty of this Rose; and we publish, among our Domestic Notices this month, a very favorable account of it from an intelligent amateur in Virginia, which also corroborates Mr. Brackenridge's interesting remarks. There is no doubt, therefore, that this variety requires a strong soil to develop its true color, and time and space enough to attain considerable size, in order to exhibit itself in perfection.—Ed.]

REVIEWS.

HINTS TO YOUNG ARCHITECTS; *together with a model specification*, etc. By GEORGE WIGHTWICK, *Architect, London*. *And* HINTS TO PERSONS ABOUT BUILDING IN THE COUNTRY, by A. J. DOWNING. New-York: WILEY & PUTNAM. 1 vol. 8vo. $1.25.

THIS is a reprint of a valuable recent English work, with very considerable American additions. Of the latter, written by ourselves, we leave the public to form their own opinions, merely premising that they consist mainly of certain practical hints, addressed to persons about building in the country, and comprised under the following heads: WHERE TO BUILD: WHAT TO BUILD: HOW TO BUILD.

Of that portion of the work which is the production of Mr. WIGHTWICK, an English architectural writer of reputation, we may be allowed to speak more fully.

It consists, in the first place, of a section addressed to young architects, and abounding with some of the most valuable suggestions that have yet come under our notice, relating both to the great and little matters of their profession, from the moment when they first take the drawing pencil in hand, to the time when they are supposed to be able to undertake and execute designs in the best style of their art.

These suggestions are by no means written in the cold and formal style of those professional lectures, not unfrequently bestowed on novices in the arts and sciences; but in a familiar and spirited manner, calculated to seize and fix the attention, and to influence directly the practical skill and studies of the pupil. We give, as an illustration, the following paragraph, addressed to the young practitioner:

We would impress upon the young aspirant to architectural honors, our repetition of the RESPONSIBILITIES which will attach to him from the first hour of his unaided practice. It may be some time before he will be enabled to purchase assistance; and, during that state of individual probation, he will have—if he have employment—duties relatively more arduous and more harassing, than when commissions shall thereafter pour upon him to the hoped-for advancement of his fame and fortune. He must be for a time "grand master," assistant surveyor, and drudgery clerk, of his own establishment: at once designer artistical, constructor practical, copying draughtsman, measurer, valuer, and more—with which we would not frighten him. He must cultivate resolution on the ground of knowledge, endurance on that of patience, and modesty on the full assurance, that, when he shall have practised to the last day of his occupation, he will have learned the more to know how much he has yet to learn. His profession is a noble one, based on palpable science, and beautified by the poetry of art. It is most gratifying in respect to the society to which it may lead, and the rank it may confer. It is more especially so in regard to the pride which an architect can not but feel in contemplating the material and enduring majesty of the structures he may have to raise. Paintings must be sought in the gallery; statues may indeed preside in the open square; but it is architecture only which towers into the sky—alike commanding, far or near; and combining the graces of form, proportion, and decoration, with picturesque charm and massive grandeur.

That an architect should be a man full of inventive genius, is the first of requisitions; but it is no less imperative that he should combine the utmost practical foresight and sagacity, touching the importance of all the minor details of his art. To enjoy the beautiful to the utmost, human nature should be kept on a platform as elevated as possible above the little miseries of life; and there are few men who would feel compensated, in domestic architecture, for internal discomforts and inconveniences that war with their everyday comfort, by the faultless proportions of a classic colonnade, or the picturesque intricacy of towers and battlements. Our author wisely endeavors, therefore, to impress this point upon the young architect:

Everybody is always in a hurry to have everything done. His patron will take six months to think of what he desires to have accomplished in as

many hours. When the commission arrives, immediate work will be required—not preparatory study: and if there be not a ready foresight to pierce through all contingencies, the progressive and ultimate perplexity will be proportionally bewildering. To anticipate possible objections is greater policy in an architect than to give immediate answer to requirement. Of all professions, his is the one most subjecting its professor to meddling interference, and a thoughtless disregard of trouble taken and obedience unrequited.

"Double, double,
Toil and trouble,"

is indeed the chant of the sister Fates who are hostile to an architect's peace. The graces of the portico, the beauties of decoration and proportion, the triumph over a hundred contending desiderata, shall be all forgotten in my lady's passion for—a housemaid's closet! It availeth not as an excuse that you can put it under the back stairs. "It should have been thought upon before. An architect! and not think of a housemaid's closet! It ought *not* to be an extra." "Extra!" Fearful word! The builder's aim, and the architect's dread! Let our young friend think of it betimes; and let him bear in mind, that the best guard against the overwhelming censure which follows it, is to habituate the mind to a foresight, which, during a study of the nearest and most important things, should penetrate into the most remote and trifling. All the grand principles of design, convenience, and enduring strength, may have been perfectly answered by the most artistical ability, by ingenious arrangement, and constructive skill; but, if chimneys smoke, gutters leak, or drains choke; if windows prove not in all trials weather-tight; if all the little conveniences of the former house be not added to all the larger ones of the present; if a shelf, a cupboard, or a rail and pins be omitted where custom might expect to find them; if the whims of old servants be not considered, or the carelessness of new ones anticipated; if, in short, the genius of a Michael Angelo be not followed close up with the care of a cabinet-maker, the architect will yet have a toil of vexation to encounter which may make him almost repent the choice of his profession.

We shall begin our practical Hints with some remarks in reference to plans, or internal arrangement, as affecting elevations, roofs, and chimneys.

The young architect too frequently concentrates his attention on those portions of his plan which concern one or more particular façades. Thus, he is careful of his entrance front, and his lawn elevation, as those alone which will be visible to a stranger approaching from the lodge, or walking in front of the sitting-room windows; and no sooner is the building roofed in, than he discovers that the "return fronts" are provokingly more generally visible to the public eye from without the boundary of the premises than the others which have had his too exclusive care. One of his "architectural" elevations is seen in continuous connexion with a surface of unstudied masonry, the respective parts of which neither harmonize in position nor in decoration: or, at the best, he exhibits a display of blank architecture, the falseness of which is proved by certain prominent necessities which will not be either concealed or modified. The offices and other inferior appendages to the mansion cling to it, and proclaim themselves with all the humiliating impertinence (or rather *per*tinence) of poor relations bent on the declaration of their consanguinity. The idea of "planting them out," which originally existed in the mind of the designer, still exists in *his* mind only. The trees he requires will take at least fifty years to grow; and, even then, winter will in its turn disrobe them of their foliage to leave displayed an obstinate range of architectural poverty. Evergreens will *never* grow high enough. The whole thing must remain as it is—a handsome countenance with an ugly profile—a beggar in a velvet waistcoat, and no coat to cover his sides.

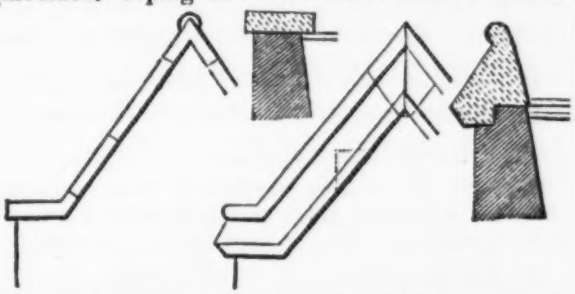
This oversight is still more commonly committed in town houses and street architecture. Nothing is more frequent among builders and young architects than the exhibition of a mere mask, which only deceives while the spectator is directly opposite on the other side of the street, or so far as there may be houses of equal height continuing on either hand. Otherwise, directly the front is passed, the blank masonry or naked gables of the returns show themselves like the mere party-walls in the transverse section of an unfinished range; and these, be it remembered, are often seen for a much greater length of time than is given, in passing, to the main front, since we may have them before us during the whole of our progress along a street of half a mile extent. Perhaps only a portion of the return ends may be seen above the roofs of the lower houses adjoining: but it is not the less necessary to continue along this portion the architectural character of the front. In the many instances which occur of houses rising successively one above the other on the side of an ascending street, too much care can not be taken to give a finished perspective effect. The means will readily suggest themselves to any one who is competent to take professional rank; and to such only do we now address ourselves. Architecture, as we have before said in the first section of our Hints, has a peculiar privilege among the arts in commanding observation from the distance, and no town or range of buildings will ever have an imposing, or even a tidy appearance, while it shows itself to be composed of independent fragments jostling one against another. The beggarly habit of carrying a cornice or parapet, with dressed doors, windows, pilasters, &c., along a twenty feet front, leaving in barn-like nakedness a thirty or forty-feet end, is an abomination which even the most vulgar country builder should eschew. Infinitely better that the whole should be consistent in the absolute perfection of nudity.

In the second place, a considerable portion of the work is occupied with a *model specification*. Every one who has indulged in "the cares of building," well knows the importance of "specifications." They are at once the *Dictionary* and the *Revised*

Statutes of the architect, builder, and owner. Upon their completeness, in the hands of faithful artisans, depends in a great degree, the whole good understanding and perfection of the edifice. When we mention first, that scarcely in any two buildings are the specifications precisely the same; and second, that nine out of ten of our professional architects are destitute of any regular formulas by which their specifications can be brought with certainty to a state of the greatest possible completeness, the practical value of this portion of the work before us, must be evident at once.

These specifications are given much in detail, and are pretty thoroughly illustrated by cuts, conveying a definite idea of the parts themselves. We extract a couple of pages relating to carpentry and mason work, to show the value of the work:

The gables of ..... to be capped with a (plain) (moulded) coping of ..... stone of the sectional

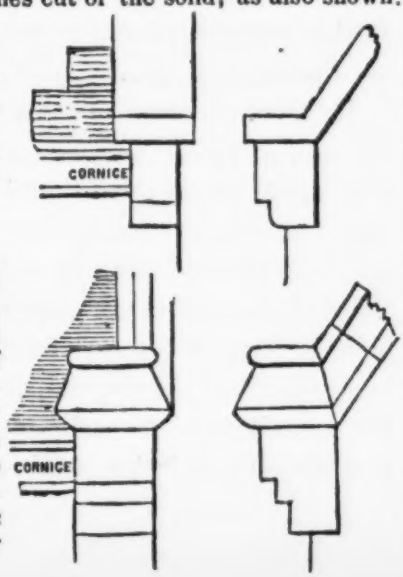


form and scantling shown by detailed drawings, in lengths of not less than ′ ″, (back-notched for horizontal beddings,) and with springing stones and apex-saddle stones cut of the solid, as also shown.

(The springing stones to be supported by cut flush corbels, of the face and profile shown by drawings;)

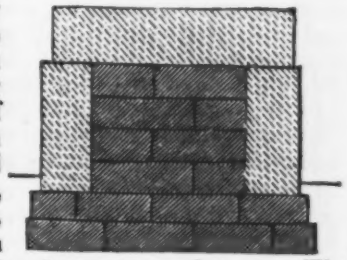
or

(The springing stones to have a return face, supported by corbels of the face & profile shown by drawings) (the said corbels to be of *stone, serving to stop the eaves cornice or gutter.*)



Portico. See Note p. 96.

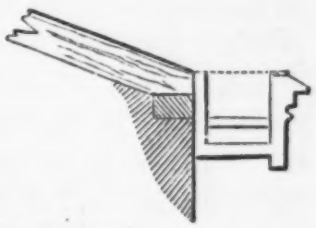
The plinth under the columns of the portico to be formed of top and side casing of ..... stone, of the sectional form and scantling, and vertical jointings, shown in drawings, properly bedded on



the (brick, or rubble) basement and core. The sub-plinth bonded into the said core, having its bonding stones under the axes of columns. (*Page 95.*)

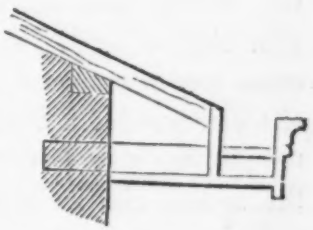
Frame and fix an 1½ inch bead flush and square trap door, in proper rebated frame, for ascent into the roof where shown on plans, with hinges and fastenings.

Inch { white pine / Memel deal } gutter cornice to be fixed to the eaves of the ..... roof, having both a fixed and a falling bottom, with moulding on the front, as drawing, and of the dimensions there figured.



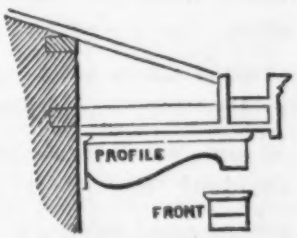
Or,

..... (same as before; adding) the same to project from the face of wall as shown, and to have a boarded soffit of inch deal, ploughed and tongued joints.

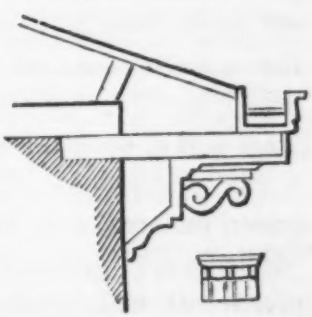


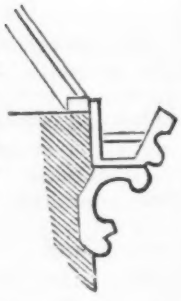
Or,

..... (same as Nos. 247 and 248; adding) also deal cantilevers, cut, moulded, and framed at intervals of ′ ″ apart, into an inch Memel deal fascia board, having moulding to correspond.



Cornice to eaves to be formed of Memel deal, framed, glued, blocked, and moulded as drawing, with cut modillions at intervals of inches apart; and a gutter of the clear dimensions shown in section, and having a falling bottom to be formed behind the upper mouldings of the cornice.





Cornice to eaves to be formed of Memel deal, framed, glued, blocked, and moulded as drawing, with rain-water gutter, of the clear dimensions figured, and having a falling bottom formed in the upper part. (*Page* 122.)

Every observer who is conversant with the state of architecture in the United States, at the present moment, must be profoundly sensible that we are in the midst of a new era in the art. Cities, towns, and villages are not only being built as rapidly, or more rapidly, than they have been at any previous periods of our history, but there is a large class of professional architects springing up in various parts of the country, and there is, at the same time, a growing attention and interest felt in the subject, by our whole intelligent population. Hundreds of persons, in various parts of the country, who, ten years ago, were ignorant that domestic architecture could assume any other variety than the two opposite extremes of a Dutch barn and a Greek temple, are now alive to all the beauties of the various classical and picturesque styles.

It is in the artistical cultivation of the more intelligent class of our landed proprietors, that we place our hopes of the final prevalence of sound principles of taste in architecture and other fine arts in America. While we rate, as highly as any other individual, the great value of the highest professional talent, we also attach the greatest importance to a general cultivation of the mind of the country at large, in the principles of beauty and utility in these arts. This will at once raise the *standard* of the works demanded—whether it be houses, books, pictures, etc.; and it will prevent the public from being imposed upon by the many pretenders, and quack-architects, that will always be more or less common in a country like ours, where the demand for labor and talent is always greater than the supply.

We offer this work, then, to the public generally, or at least all that part of it who build houses—as one which will greatly assist them, in no inconsiderable degree, in attaining that kind of knowledge which must be of eminent practical value to them in all operations that demand the skill and labor of the architect, builder, or mechanic. It will enable them to build more correctly, more cheaply, more satisfactorily, and more agreeably, than any person, deficient in this kind of information, possibly could do; *since half the difficulty of doing anything will vanish, when we know how it should be done.*

To young architects, and indeed to most of those already well versed in their professions, we need scarcely commend this work as an invaluable assistant to their daily labors. A single glance at its pages will show them that we have not over-rated its merits in this respect.

.....

A DICTIONARY OF MODERN GARDENING; by GEO. W. JOHNSON. Edited, with numerous additions, by DAVID LANDRETH. Philadelphia: LEA & BLANCHARD. 1847. 12mo. pp. 635.

A VERY useful compendium of all the chief points of interest in horticulture, arranged in that old and most accessible of forms—an alphabetical one.

Mr. JOHNSON has not attempted, in this volume, so far as we have examined it, to add much to the already existing stock of ideas before the public, but to array them in a concise and simple manner, so as to afford the requisite information on a given topic in a small space. Nearly all the leading authors of the day have been laid under contribution, to make up the different paragraphs; and the result is a very good

digest of the theory and practice of the day in England.

The present American edition has been brought out under the editorial care of that most respectable and excellent cultivator, DAVID LANDRETH, of Philadelphia. We extract the following paragraph, explaining the character of the reprint, from the publisher's preface:

"The ordinary form in cases of reprint, with additions and explanatory notes, has been departed from in this instance, with a desire to preserve the book from the awkward aspect which it would necessarily present, if every addition by the American Editor had been included within brackets, or printed in varied type.

"This edition has been greatly altered from the original. Many articles, of little interest to Americans, have been curtailed, or wholly omitted, and much new matter, with numerous illustrations, added; yet the present Editor freely admits, and has desired the publishers to state, that he has only followed in the path so admirably marked out by Mr. JOHNSON, to whom the chief merit of the work belongs."

Our own judgment differs from that of the publishers, in this respect. By following the usual mode of designating the additions of the American editor by *brackets*, one is at no loss to know on whose authority—whether, for example, that of Mr. JOHNSON or Mr. LANDRETH—any given statement is made. We cannot but think this an important matter, since, even in this expurgated edition, we find many directions for culture given, which do not properly apply to our climate, yet regarding which, as the matter stands, one is left to conjecture whether they are from the pen of the English or American editor.

Mr. LANDRETH's additions, (as we suppose them to be,) are most conspicuous in the articles on the different fruit trees. The selections, though small, are generally good, and the descriptions of some of the varieties are accompanied by outlines, part of which, we observe, are taken from our work on Fruits. We notice the following error, (perhaps some accidental transposition of the printers,) in the account of the *Gloria Mundi* apple:

"GLORIA MUNDI: synonyms *Monstrous Pippin*, Coxe; *Golden Ball*, Kenrick. Coxe says this imposing apple originated on Long Island. Downing supposes it came originally from Maine," etc. *p.* 49.

By turning to our *Fruits and Fruit Trees*, the reader will see that we by no means consider the *Golden Ball* synonymous with the *Gloria Mundi*. The fruits are widely different. The latter ripens from October to January, and the former from December to March. In our description of the *Golden Ball*, we state: "This is a favorite apple in the State of Maine, where it is probably a native." In the account of the *Gloria Mundi*, we state: "It is not a little curious that the origin of this apple is claimed for Red Hook, (on the Hudson,) for Long Island, and Baltimore."

We find that Mr. JOHNSON has as great faith in the virtues of *common salt*, upon vegetable growth and health, as ourselves. The following paragraph, relating to its effects upon plants suffering from the disease known as the *honey dew*, (and which first appeared in his *Principles of Gardening*,) will interest our readers:

"The various successful applications of liquids to plants, in order to prevent the occurrence of the honey-dew and similar diseases, would seem to indicate that a morbid state of the sap is the chief cause of the honey-dew, for otherwise it would be difficult to explain the reason why the use of a solution of common salt in water applied to the soil in which a plant is growing, can prevent a disease caused by insects. But if we admit that the irregular action of the sap is the cause of the disorder, then we can understand that a portion of salt introduced into the juices of the plant would naturally have a tendency to correct or vary any morbid tendency, either correcting the too rapid secretion of sap, stimulating it in promoting its regular formation, or preserving its fluidity. And that by such a treatment the honey-dew may be entirely prevented, I have myself often witnessed in my own garden, when experimentalizing with totally different objects. Thus I have seen plants of various kinds,

which have been treated with a weak solution of common salt and water, totally escape the honey-dew, where trees of the same kind growing in the same plot of ground not so treated, have been materially injured by its ravages. I think, however, that the solution which has been sometimes employed for this purpose is much too strong for watering plants. I have always preferred a weak liquid, and I am of opinion, that one ounce of salt (chloride of sodium) to a gallon of water, is quite powerful enough for the intended purpose. I am in doubt as to the correctness of Knight's opinion, as to the mere water having any material influence in the composition of such a remedy, since I have noticed that standard fruit trees, around which, at a distance of six or eight feet from the stem, I had deposited at a depth of twelve inches a quantity of salt to promote the general health and fruitfulness of the tree, according to the manner formerly adopted to some extent in the cider countries for the apple orchards, that these escaped the honey-dew which infected adjacent trees, just as well as those which had been watered with salt and water."

Both the theoretical and practical horticulturist will find this *Dictionary* an interesting book, and worthy of a place among those for daily reference.

.....

ILLUSTRATIONS OF MEDICAL BOTANY: *consisting of colored figures of the plants, affording the most important articles of the Materia Medica, and descriptive letter press. By* JOSEPH CARSON, M. D. Philadelphia: ROBERT P. SMITH, 144 Chestnut-street. No. 1. 4to. p. 28.

WE announced this work as in preparation some months ago, and we have now the first part lying before us. Its chief design is to furnish faithful portraits, of the size and color of nature, of all the most important plants of the Materia Medica. The plates are characteristically drawn on stone, and neatly and faithfully colored. They are accompanied by concise botanical descriptions, and a brief statement of the peculiar medical qualities of each species. The author observes: "As the design of the work is simply to present the botanical history of the Materia Medica, and not a complete account of it, with the exception of indicating the modes of operation peculiar to each substance, all therapeutical and pharmaceutical details appertaining to it, have been omitted. The works especially written with the view of unfolding them are full, and easy of access."

When we reflect how many students, physicians, and dealers in medicine in this country, are ignorant of the living appearance of the vegetable remedies which they employ, we cannot but believe that a work of this kind is well timed, and will be found exceedingly useful.

FOREIGN NOTICES.

RHUBARB TARTINE.—The enclosed recipe for making what I call, for want of a better name, "Rhubarb Tartine," will, I think, be of some use to cottagers and others, as a cheap mode of using Rhubarb, and especially to those who find pastry unwholesome. Take as many Rhubarb stalks as will fill a baking dish, and lay them in water for ten minutes; then grease a dish for baking, and put in the bottom of it some bread cut in slices about a quarter of an inch thick, toasted and soaked a few minutes in some boiling water poured into a plate, with two table spoonfuls of moist sugar in it. Cut the Rhubarb into pieces an inch long, and fill the dish; then put some slices of toasted bread, soaked as before, to cover the top, and bake it about an hour and a half, or till well done. If the toast be cut from the bread after being toasted it will be the nicer.—*G. Cooper. Gard. Chron.*

ASPARAGUS.—I venture to call attention to a practice which prevails so almost universally as to fill me with astonishment, and at the same time make me feel some hesitation in applying to it the terms ridiculous and absurd. The practice to which I allude was forced particularly on my attention in passing through Covent Garden market, on Saturday last, when of all the beautiful Asparagus exposed for sale, every bundle that I saw was white to within an inch of the top; whereas had it been allowed to grow higher above the ground, it might have been not only edible but delicious.

I am quite at a loss to account for the prevalence of the custom of earthing up the plants so high for the mere purpose of blanching the stem. I have, for several years, been in the habit of cutting a large quantity of Asparagus, and my practice has been this: Some time between the second week in

April and the 1st of May, (I speak of the south-western counties,) the beds are raked off so as to leave not more than two inches of light mould above the crowns of the roots, and none is cut until five or six inches above the ground, and I never remember a person to whom this practice was new, partaking of the produce, who did not remark on its exceedingly fine flavor and delicious quality. By this means a great quantity of edible matter is gained, and that certainly without the sacrifice of any delicacy or fineness of flavor. Moreover, to an unprejudiced eye, a dish of green Asparagus is at least equal in appearance to one of white. I make no doubt that if one of the Covent Garden dealers was to start with a lot of green "Grass," all who ventured to taste it would continue to frequent his stall in preference to any other. In conclusion let me ask, whether any real advantage accrues from the use of the saw called an Asparagus-knife, over one of ordinary make, with a blade of sufficient length?—O. *Gard. Chron.*

.....

Root-Pruned Pear Trees.—As I was one of the first who called your attention to the root pruning of Pear trees, for the purpose of making them bear early, I was glad to find, on a visit to Sawbridgeworth nursery the other day, that Mr. Rivers has carried out, with the most complete success, his management of the Pear, so as to produce early fruitfulness, and yet the most vigorous and healthy growth. I should say that you will scarcely find one tree in a hundred of his vast nursery of Pears (covering, I can not recollect how many acres,) which is not covered with bloom. The trees are 3 to 4 feet high, trained conically, and, with few exceptions, all grafted on Quince stocks. In addition to the dwarfing effect of this stock, he finds many of the best kinds of Pears, which are worthless on Pear stocks, produce excellently flavored fruit on the Quince. There are, however, some kinds which he finds it impossible to cultivate on this stock, and therefore, in order to avail himself of the advantages of the stock, he first grafts on it a common Pear, and then grafts or buds the reluctant or refractory variety on the Pear; and by this mode of double working, he procures a good bearing tree, with all the advantage of the Quince root. Five years ago I had small Pear trees, with bloom buds in November, which bore a good crop in the following year; and any one who had laid in a stock of these little conical trees last autumn, might have this season had an orchard of Pears in full bearing, always presuming that we do not have such a May to destroy our fruit as we had last season. It is astonishing what a collection of these trees may be contained in a small space; from 5 to 6 feet apart, in rows running north and south, is quite space sufficient. I feel satisfied that not half sufficient attention is paid to this fruit for our desserts; a very little care, and a judicious selection of sorts, would ensure them daily from the end of July till May. I found two sorts in Mr. Rivers' fruit-house both in excellent order—the Fortuné, an admirable Pear, and the Ne plus Meuris, and I dare say these will be equally good a month hence. I think he told me he had nearly 900 kinds, of course very many of which are worthless, but there are many which he has not yet proved, and again, although his grounds afford a great variety of soil and aspect, yet as it is known that climate, aspect, and soil, have a strong influence on the excellence of the fruit, we are still in want of information from your various correspondents on this subject. There are many kinds which produce finer looking fruit on walls, which, however, are much surpassed in flavor by the smaller fruits, as on espaliers or on conical-shaped standards. I have adopted a suggestion of Mr. Rivers' in planting a conical trained standard near the wall between my Peach trees, and find the fruit of the tender varieties better flavored than what is grown against the wall; and these trees take up little or no wall. Mr. Rivers finds the trees grafted on Quince stocks flourish better when the whole of the stock is covered with earth (he grafting at about 6 inches from the ground) as the stock is apt to get hard and hide-bound, especially when the graft is of a kind of vigorous growth. He has planted several on mounds of earth, tonguing the stock to encourage the throwing out of small roots, and he proposes in the autumn to replant them, cutting away the bottom strong roots, and then obtaining little else than a mass of fine fibrous roots for the support of his tree, which will make fruitfulness certain. When this matter was first discussed, that is, a systematic course of root-pruning, for we all admitted that it was occasionally done before, the objectors cried out that no good fruit would be produced, that the fruit like the trees would be stunted and without flavor and gritty. I can report that the fruit on my root-pruned trees has been finer than that produced on old trees which were left in their natural state; but these pruned trees must be duly attended to, manured, and must be mulched in a dry summer.—*Dodman.* P. S. I forgot to mention that at Sawbridgeworth, Mr. Rivers is making a large collection of Plums, having nearly 150 kinds, many obtained from Germany as well as America. I think it important to obtain some of the hardy German kinds, which are so much used in cooking, both of the earliest and the latest sorts. *Gard. Chron.*

.....

Killing Insects on the Vine.—In a review of a new *Traité sur les Vins de la France*, by Batilliat, in the *Gardener's Chronicle*, we find the following highly interesting account of a successful mode of destroying insects, infesting the Grape Vine:

In the first part of his treatise, the author has given some account of the insects which are most injurious to the Vine in France, viz., Pyralis, or Ver de la Vigne; a species of Tinea, or teigne de la Vigne; and the altise or pucevette, a coleopterous insect of the genus Chrysomela. Of these, the first mentioned is the most formidable, extending its ravages over great tracts of country, and occasioning enormous losses in the vineyards, especially in the southern provinces. In the departments of the Saone and Loire, and of the Rhine, for example, the loss occasioned by it in 10 years has been computed at 34,080,000 francs, and this, says Mr. B., is by no means an exaggerated estimate. In the department of the Lower Charente, between

the years 1815 and 1838, it was found to destroy to the value of 922,000 francs, and in the Eastern Pyrenees the average annual waste which it occasions is reckoned to be not less than 14,000 hectolitres. Such being the case, it became an object of importance to discover the means of protecting the Vines from these destructive attacks; and in the year 1837, a distinguished entomologist (M. Audouin) was commissioned by the government to investigate the subject. He examined the insect in all its phases and transformations, and, after trying without success to extirpate it by caustic and poisonous applications, recommended collecting and destroying the eggs before the development of the caterpillars, which takes place in the beginning of August. This method, however, is too troublesome to be generally employed; and the same may be said of the plan of covering each stock with an empty cask, and fumigating with sulphur. Corrosive washes, and the application of glutinous substances to the bark, proved of little avail, as the insect commences its devastations in the form of a minute caterpillar, which has the power of suspending itself by a slender thread from the edges of the leaves, and of thus transporting itself from one leaf to another; and the dusting of the buds with quick-lime and arsenic, which was recommended by some, only killed the leaves, and therefore did more harm than good. None of these measures being found efficacious, a wine-grower of Romaneche, M. Raclet, bethought himself of the expedient of assailing the insect in the form of chrysalid in the fissures of the bark where it lodges, during the winter months, by pouring boiling water over the stocks, and the experiment was attended with perfect success. For this purpose, Mr. R. employed a vessel of tinned iron, with a small spout, holding a litre, or full quart, and covered with list or cloth; and, having filled it with boiling-water, he emptied the contents over the stocks, beginning at the top, and avoiding the young shoots and buds. By this process the vitality of the chrysalid is destroyed, and that without injury to the plant. A deputation from the Agricultural Society of Macon, to whom M. Raclet had communicated his invention, was sent to verify the results, and certified, that by the above described operation the insects were killed; and that the Vines which had been so treated were more vigorous, and yielded a larger produce than those in the neighborhood, where the insects had been allowed to remain undisturbed. Twelve hundred stocks, covering eight ares, or a fifth of an English acre, gave three hectolitres of wine, while the produce of six hectares, or nearly fifteen English acres of contiguous vineyard, was only twelve hectolitres. M. Raclet calculates that three persons may go over with the hot water, sixteen ares, or about 2,400 stocks in the course of a day.

.....

French Wine Making.—The gentleman to whom I brought the letter was not himself a proprietor of vineyards at Hermitage, but was requested to introduce me to some person having a vineyard there. On waiting upon him this morning, I found a letter prepared for me, addressed to Messrs. Richard and Sons, who are eminent wine merchants and bankers in Tournon, a town on the opposite side of the Rhone to Tain, and joined to it by a suspension bridge. On receiving this letter, I hired a vehicle to carry myself and my baggage to Tain, which is a small town, situated on the left bank of the Rhone, on the plain which lies immediately between the hill called *Hermitage* and the river. On presenting my letter, and explaining in general terms the object of my visit, I entered into conversation with Mr. Richard, senior, relative to the wines of Hermitage. The greatest part of the finest growth is sent to Bourdeaux to mix with the first growths of claret. Messrs. Richard are themselves proprietors of part of the hill of Hermitage, but not of that part which yields the finest wines. They are also wine merchants; but like the Messrs. Durand, of Perpignan, they sell it only on the grand scale. One of the sons, who manages this department, conducted me over the cellars. The press is more complete than any I have ever seen; the screw is of iron, and from the closeness of the worm, must be of immense power. It is raised in the centre of a square trough, about seven feet in diameter. The female screw is covered by a horizontal wooden wheel, the spokes of which project over the sides of the trough, and are finished off so as to afford a convenient handle for the workmen. At the height of a foot from the bottom of the trough, on the outside, there is a circular stage projecting from its sides for the workmen when filling the press, and turning the wheel. The sides of the trough only rise to the height of this stage. The grapes, without any previous treading, are built up in the trough to the height of the screw, and when the latter is turned, the *must** flows from spouts which issue from the bottom of the trough at each side. When the sides of the mass which may have been pressed out so far as to escape from the action of the press, have been cut off with an instrument resembling a hay-knife, and the press has been raised so as to receive this additional quantity, and again put in operation, the process is complete; not a drop of *must* remains in the *marc*, as the mass of skins and stalks is called. The *marc* is disposed of, and employed to produce a bad brandy; for this purpose it is soaked in water to extract any saccharine matter which may remain, and the fluid which it yields, when again pressed, is fermented and distilled. To my astonisment, Mr. Richard informed me, that by one charge of this press they could obtain 40 casks of wine of about 50 gallons each. As the *must* flows from the press, it is conveyed to the casks, where it is suffered to ferment from five days to a month, according to the strength of fermentation, the casks being always kept full to permit the scum to escape. When the first fermentation is decidedly finished, the wine is drawn off into a clean cask, which has been previously sulphured. This is the whole process of making the white wines of Hermitage. They are more or less sweet according to the proportions of sweet and dry grapes which have been united in producing them, for they are all made from two varieties, the *Marsan*, yielding a *must* which by itself, would give

* Fresh unfermented grape juice.

a sweet wine, and the *Rousette*, a *must*, which by itself would yield a dry wine.

The white wine of Hermitage, even after having undergone the complete fermentation above described, still retains a disposition to effervesce when put into bottle. It is said to be, without question, the finest white wine of France, and will keep 100 years, improving as it gets older; and when very old, acquiring a similarity to the white wines of Spain.

For fermenting the red wines, Messrs. Richard have two vats, each capable of containing 16,000 gallons. Every day as the grapes are brought from the vineyard, they are trodden in troughs, and then emptied into the vats; and while the vats are filling, a man gets into them once a day to tread down the surface. The object of this is to prevent the surface from becoming sour by exposure to the air, and to render the fermentation as equal as possible through the whole mass. When it becomes too deep for a man to tread it to the bottom, he suspends himself by the middle from a plank across the vat. The duration of the fermentation is very uncertain, depending upon the state of the weather, and the ripeness of the grapes. Messrs Richard ferment the finest grapes in one vat, and those of an inferior quality in the other. I tasted the wine of both vats of the large vintage; the first was made of the best grapes, which were also gathered in dry and warm weather; the second quality was made from the inferior grapes, and from others which had been gathered during rain and cold weather. The fermentation of the first was over in five days, and its present value is 300 francs the cask of 210 litres, (that is, about as many bottles;) the other continued fermenting in the vat for twenty days, and its present value is only 80 francs for the same quantity.

The finest clarets of Bourdeaux are mixed with a portion of the finest red wine of Hermitage, and four-fifths of the quantity of the latter which is produced are thus employed. The wines are racked off the lees in spring and sulphured. A very small piece of sulphured match is burnt in the casks intended for the white wine; the red wine requires a greater portion. These matches are purchased from persons who make a business in preparing them. They are slips of paper, about one inch and a half broad, and when coated on both sides with sulphur, are about the thickness of a sixpence. A piece of one inch and a half square, is sufficient for a cask of white wine containing 50 gallons. *Busby's Visit to the Vineyards of France and Spain.*

.....

Fa-tee Gardens near Canton.—Here then I beheld a specimen of the far-famed system of Chinese gardening, about which we have read so much in European authors: I will, therefore, describe them somewhat fully. The plants are principally kept in large pots arranged in rows along the sides of narrow paved walks, with the houses of the gardeners at the entrance through which the visitors pass to the gardens. There are about a dozen of these gardens, more or less extensive, according to the business or wealth of the proprietor; but they are generally smaller than the smallest of our London nurseries. They have also stock grounds, where the different plants are planted out in the ground, and were the first process of dwarfing their celebrated trees is put in operation. These contain large collections of Camellias, Azaleas, Oranges, Roses, and various other well known plants, which are purchased by the Chinese when in flower. The most striking plant in autumn or winter, is the curious fingered Citron, which the Chinese gather and place in their dwellings or on their altars. It is much admired both for its strange form and also for its perfume. The Mandarin Orange is also much grown at Fa-tee, where the plants are kept in a dwarf state, and flower and fruit most profusely, producing large flat, dark, red-skinned fruit. The Chinese have a great variety of plants belonging to the Orange tribe; and of one, which they call the Cum.quat, a small oval-fruited variety, they make a most excellent preserve. The Murraya exotica, Aglaia odorata, Ixoras, and Lagerstræmias, are very ornamental here in autumn.

But it is of course in spring that the Fa-tee gardens possess the greatest attractions. They are then gay with the Tree Pæony, Azaleas, Camellias, Roses and various other plants. The Azaleas are splendid, and reminded me of the exhibitions of the garden of the Horticultural Society at Chiswick, but the Fa-tee exhibitions were on a much larger scale. Every garden was one mass of bloom, and the different colours of red, white, and purple blended together, had a most beautiful and imposing effect. The principal kinds grown were Azalea indica, indica alba, phœnicia, lateritia, variegata, and the yellow Azalea sinensis. I may mention, in passing, that I found the latter plant wild on the Ning-po hills, so that there is no doubt of its being a genuine Chinese species. The air at this season, around Fa-tee, is perfumed with the sweet flowers of Olea fragrans and the Magnolia fuscata, both of which are grown extensively in these gardens. Dwarf trees, as may be supposed, occupy a principal station; they are trained into the most grotesque and curious forms. The plants which stand next to dwarf trees in importance with the Chinese are certainly Chrysanthemums, which they manage extremely well, perhaps better than they do any other plant. So high do these plants stand in the favor of the Chinese gardener, that he will cultivate them extensively even against the wishes of his employer; and, in many instances, rather leave his situation than give up the growth of his favorite flower. I was told, that the late Mr. Beale used to say, that he grew Chrysanthemums in his garden for no other purpose than to please his gardener, not having any taste for this particular flower himself.

Tree Pæonies are not natives of the south of China, but are brought down in large quantities every year, about the month of January, from the northern provinces. They flower soon after they arrive, and are rapidly bought up by the Chinese to ornament their houses, after which they are thrown away, as they do not thrive well so far south as Canton or Macao, and will not flower a second season. They are sold according to the number of flower buds they may have upon them,

many of them fetching rather high prices. *Fortune's Three Years in China.*

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Begonia fuchsioides. Fuchsia-like Begonia, or Elephant's Ear. *Stove Perennial.* (Begoniads.) Ocana Mountains of New Grenada.—A most lovely new Begonia, detected by Mr. Purdie, during his mission for the Royal Gardens at Kew. It is easily propagated by cuttings, grows rapidly, bears small but copious foliage, and is a plant to which he particularly requested our attention, on account of the copious, elegant, drooping red flowers, at first sight resembling those of a Fuschsia ; and because it is much eaten to allay thirst by the Arrieros (mule drivers) of the country. He also observes that the globular buds, (meaning, probably, the buds of the fertile blossoms, which are globular) contain a fluid, which, together with the acid of the flowers, proves highly grateful in the dry season and where there are no rivers. It has bloomed during the autumn months with Mr. Veitch of Exeter, who has one plant three feet high, loaded with flowers. Our plants are now beginning to flower. It is singular that, as far as they have yet blossomed, the plants have proved only male-flowered, except the tall one of Mr. Veitch, which has one cluster of female flowers at the top. *Botanical Magazine.*

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Fuel in Paris.—It is quite cold to-day, and I have been obliged to have a fire ; I therefore purchased two francs' worth of wood. There is a *marchand de bois* across the street, who occupies not a spacious wood-yard, as you would probably imagine, but a small shop, and that shop, small as it is, is large enough to stow many thousand francs' worth of this precious article. They would no more think of exposing it to the depredations of the needy and unprincipled, in the open air, than a silver-smith with us, would pile up his wares in a yard ; why, while the *marchand de bois* was looking away, some scoundrel might fill his pockets and be off. For two francs I got twenty-three sticks, short sticks, rather small ; and for two sous each I purchased two bundles of kindlings in fagots. It is, I believe, about a franc and a half for fifty pounds. When a fellow was going to buy a foot, they hardly thought him sane, and inquired if he would pay on the spot. The shop of the *marchand de bois* is decorated outside with paintings of piles of wood in perspective, presenting a perfect El Dorado, like the piles of gold in the broker's windows, only less real ; they sell also *charbon de terre* and *charbon de bois.* They also sell (it will make you laugh to hear) small pine cones, four for a sous, for fuel. In the winter they burn English coal, which is dear too, mixed with wood. The forests in France are mostly consumed, and great complaints are made of the high duty on English coal. —— astonished his barber by telling him he had burnt up while camping out many thousand francs' worth of wood in one night ! Their manner of sawing wood expresses the value they put upon it ; instead of subjecting it to the rude contact of a saw-horse, they hold it carefully in their hands, and rub it up and down the saw ; The sawdust is of course carefully preserved ; they would as soon waste gold dust. A good deal might be said on the influence which the scarcity of fuel has had on the French character, driving them to the café and the spectacle, from the fireside.—*Paris Corres. Salem Gazette.*

DOMESTIC NOTICES.

Paulownia Imperialis.—There are few things in the vegetable world that more effectually illustrates the skill of the hand which formed them, than the flower buds of this tree. Growing through the summer with a rapidity and luxuriance unsurpassed by any hardy tree known in this climate, it begins to consolidate its juices as the winter approaches, and to form of its own resources, a beautiful little dwelling for its infant flower, and the germ destined to perpetuate its existence. The seeds being fairly established, each in its little cell, and surmounted by the steeple-like style, the four stamens are delicately folded about them, and covered with a texture like fretted mother of pearl. The whole is then surrounded by a delicate moss covered tissue, resembling very much the beautiful frost work that covers the leaves of the ice plant, and the interior surface of which is like finely polished silver. This is then covered by a thick cellular tissue, lined with this same delicate frost work, and protected on the outside by a tough rind, resembling through a powerful microscope, the external covering of the cocoanut, and admirably adapted to protect the bud from cold and from every external injury. The bud is rather oval, about three-eighths of an inch in diameter one way and five-eighths the other. When the spring opens, the bud begins to swell, the outer covering bursts at the apex ; the mossy lining of the outside, and the mossy covering of the inside, separate and present at this stage a beautiful frost-like appearance. The delicate covering of the inside now begins to slide apart the four layers which crown its apex, and the flower opens its blue point to the light of day. The warm spring sun now soon expands the entire flower and exhibits the colour of a light purple, slightly shaded with blue. In form it is somewhat like a Foxglove, between the Gloxinia and the Bignonia radicans, and the specimen before me measures two and five-eighths inches from the base of the calyx to the top of the petals. This calyx is as thick as heavy buckskin, and, as before remarked, is most admirably adapted to protect the flower-bud from intense cold. The flowers are produced in racemes at the extre-

mities of the branches, and will probably continue in bloom a long time, as some buds have scarcely swelled while others are fully expanded. The fragrance is very slight and not unpleasant.

I have watched with no little interest the formation of the bud and the expansion of the flower on the tree in our grounds, and am quite of the opinion that the Paulownia, with its very rapid growth, its perfect symmetry, its entire hardiness and its racemes of beautiful flowers, is a very valuable and highly ornamental acquisition to the list of hardy deciduous trees. *S. B. Parsons. Flushing, 5 mo. 20, 1847.*

[This is the first specimen of the Paulownia, so far as we have heard, to flower in the United States.—Ed.]

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Azalea sinensis, hardy.—You are acquainted with that downy plant the *Azalea sinensis;* its habits you are aware, are not dissimilar to the American *Pontic*—the hardy and shrubby variety so ornamental in pleasure grounds; the flowers of the *sinensis*, however, are of a much more intense or brilliant orange than any of ours, and are really splendid, on which account and being an exotic, it has been, so far as I have observed, treated as an indoor shrub. From some remarks I heard a friend make last autumn on Azalea culture, I was determined to try it out; and although my specimen plant was transplanted into one of the flower beds, out of a pot, in November, and, to make the experiment thorough, left totally unprotected, it is now, May 20, fast breaking into leaf, even at the extreme tip of the longest branch, and showing some half dozen flowering heads, with a strong shoot coming up from the roots. The circumstance of this fine shrub being hardy, greatly enhances its value as an outdoor shrub. Too little attention is paid to the culture of hardy Azaleas; many of them have been hybridized by Mr. Landreth, of Philadelphia, with complete success. I have one called *radicans*, sent me by G. Winter, Esq. of Flushing, whose flowers almost vie with the beautiful *sinensis*, and add greatly to the gaiety of the garden in this, the "rosy time o' the year." I am yours very truly. *G. C. Thorburn. Astoria, Long-Island.*

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Cloth of Gold Rose.—Though this rose, when first introduced into the country, bore a high reputation, and was sought after with avidity, yet it appears to have been received with faint praise by those who have succeeded in flowering it. No encomium however, that has ever been passed upon it, could have been exaggerated. It is indeed the queen of roses. In the bud, and until it is half expanded, it is impossible to conceive of an object more exquisite. It is the appropriate type of girlhood, in all its loveliness and purity. Nor indeed is it less perfect when fully blown. Not only in form, but in size, is it entitled to pre-eminence over the most admired of the tribe. S. D. Morton of this place has succeeded in developing its beauties in a manner to make it the admiration of all beholders. Twelve months ago he turned out a small plant in his grape-house, the soil of which had been trenched and enriched to the depth of two feet. During the summer it made a luxuriant growth, extending itself fully eight feet; and at this time it has about forty buds and roses upon it. In colour, it is a light sulphur—lighter probably, by several shades, than if it had been grown in the open air. *P. Petersburg, Va., May 1, 1847.*

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Large Native Pear tree.—We learn from Mr. Jno. Owen, Cambridge, Mass., that the original *Harvard* pear tree is yet standing in Cambridge. The trunk at 4 feet above the ground measures 4 feet 2 inches in circumference. It is growing in a clay soil.

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Protection against late Frosts.—One of the most vexatious impediments to the successful cultivation of fruit that the cultivator has to contend against in many districts of our country, is the liability to partial or complete ruin to the blossoms or young fruit by late spring frost. This disaster may be prevented by smoke, as is known to many; but the ease and safety of the application is not appreciated as it should be; and to call attention to it is the object of this communication. In the winter or spring previous to the season of fruit blossoms, I procure a wagon load of sawdust or refuse tan bark from the tannery, a part of which I place under cover that it may become dry, and the rest I leave exposed to the weather. At the season of exposure, if the weather gives indications of danger, and the temperature is nearly or quite down to the freezing point, at one or two o'clock in the morning, I take two or three shovelsful of the dry bark or sawdust, and lay it on the ground; into this I put a coal of fire; then, on this place half a bushel or more of the wet bark or sawdust, and a smoke will quickly rise that will prevent the accumulation of frost for some distance around. Two men will make twenty or thirty of these fires in nearly as many minutes, which will be sufficient to protect a fruit garden of an acre in extent. If there is a slight current of air, I place the fires on the windward side of the garden, if not, they are so arranged as to give security to those trees which have blossomed most fully. At the season when fruit trees are in flower, frost rarely condenses on vegetation until late in the night, and if the fires are going by two o'clock in the morning, it will be soon enough, and more fuel will not be needed, as it would be, should they be set at an earlier part of the night.

Smoke, however annoying and vexatious under certain circumstances, may be turned to good account in the matter referred to. Artificial means are often resorted to, to retard the blossoming of fruit trees until a late period in the season, in order that the danger from frost may be lessened. The latter method affords but partial safety at certain and considerable expense, which is worse than lost should no frost occur; because as much time as the flowers are kept back, the fruit will be delayed in ripening, and many of the best varieties cannot, in northern latitudes, mature, unless they have every day of the short summer. Smoke, of course, would be much more available in the fruit garden than in the orchard. But even in the latter, one hundredth part of the loss occasioned by a severe late frost would be more than sufficient to defray all the expense of protection by warm vapor or smoke in the way I have pointed out, and which I have thorough-

ly tested here. Yours. *C. S. Newport, N. Y., June* 11, 1847.

[We should think the foregoing an admirable suggestion, and worthy of extensive trial in interior districts.—Ed.]

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Fresh Peaches in Winter.—Early in April we had the pleasure of receiving from Samuel Wyman, Esq. of Baltimore, two tin cans, hermetically sealed, holding about two quarts each, bearing the following printed label:

"Fresh Peaches, put up in the natural state, without sugar, and suitable for a dessert, to be eaten with sugar and cream, etc. *Warranted to keep 12 months in any climate.* Put up by Edward Wright, 16 Hill street, Baltimore."

Mr. Wyman informs us that these peaches, which were of large size, were grown by himself; that he has made repeated trials of this, Mr. Wright's mode of preserving, with the details of which he is unacquainted; and adds, "I feel constrained to say that this process of preserving, whatever it may be, maintains the natural taste and flavor of the fresh fruit, in a degree far superior to any other with which I am acquainted."

On opening the cans, we found the peaches *halved*, and apparently lying in their own juice. When cut up with sugar, they are as nearly as possible like the fresh fruit in appearance and flavor, and to our own palate infinitely more delicious than any "preserved" fruit, as the term is usually applied—that is, to fruit "embalmed in sugar," and which retains none of the freshness of the natural state.

The process we should imagine to be a simple one, and is no doubt much the same as that employed by the French in preserving truffles, etc., though we think the specimens much more completely preserved than the so-called fresh fruit which we have seen sent from France.

We understand quite a business is carried on in this preserved fruit in Baltimore. The secret would, if as easily carried into practice as we should suppose, be worth a good deal to the country at large.

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New-York Horticultural Show.—We are gratified to be able to announce that the American Agricultural Association has established a series of Horticultural Exhibitions for the present year in the city of New-York. While this number is going to press, the June exhibition is in preparation, and there is, we learn, promise of a fine display of fruits and flowers. The circular of the Association, embracing the list of Premiums for the autumnal exhibition, we now lay before our readers. We are glad to perceive that this Society, the officers of which are among our most zealous and influential citizens, has taken the cause vigorously in hand, and we trust, under its good management, that extensive influence may be brought to bear which the metropolis of the country ought to have exercised long ago in this matter.

American Agricultural Association, New-York.—Premium List for the Horticultural Exhibition on the 15th and 16th September next:

BOUQUETS.

Premiums to be awarded by a committee of Ladies.

For the	best pair of Parlor Bouquets,	$3
"	second best,	2
"	best pair of Hand Bouquets,	3
"	second best,	2
"	best Basket of Flowers,	3
"	second best,	2

FLOWERS.

Judges.—Messrs. N. J. Becar, Brooklyn; Edgar Hicks, Brooklyn; T. M. Carpenter, New-York; Dr. Wm. W. Valk, Flushing; Peter B. Mead, New-York.

DAHLIAS.

For the	best twelve varieties—self-colored,	5
"	second best do. do.	3
"	best six varieties—parti-colored,	5
"	second best do. do.	3
"	largest and finest display,	5
"	best Seedling—self-colored,	5
"	best Seedling—parti-colored,	5
"	best display of Cut Flowers,	5
"	second best do.	3

GREENHOUSE PLANTS.

For the	best twelve,	5

VEGETABLES.

Judges.—Messrs. Gouverneur Morris, Westchester; Francis Briell, Jersey City; J. W. Cudlipp and D. Holden, Bloomingdale; James Mathewson, Morrisania.

For the	best peck of Potatoes,	2
"	second best do.	1
"	best peck of Sweet Potatoes, raised within thirty miles south of New-York,	2
"	second best—same limitation,	1
"	best 25 Onions,	2
"	best 6 heads of Cabbage,	2
"	second best 6 do.	1
"	best 6 heads of Red Cabbage,	2
"	best 12 Blood Beets,	2
"	best 12 Carrots,	2
"	best 6 heads of Endive—blanched,	2
"	best 6 heads of Cardoon,	2
"	best 6 stalks of Celery—blanched,	3
"	second best 6 do do.	2
"	best 12 roots of Salsify,	2
"	best pair of Egg Plants,	2
"	second best do.	1
"	best half-peck Tomatoes,	2
"	best 12 pods of Okra,	2
"	best 12 Parsnips,	2
"	best 12 Turnips,	2
"	best 3 heads Broccoli,	2
"	best 2 heads of Cauliflower	3
"	best display of Vegetables,	5

FRUITS.

Judges.—Messrs. Wm. T. McCoun, New-York; Charles Downing, Newburgh; J. Hayes, Newark; William Kelly, Rhinebeck; R. B. Parsons, Flushing.

GRAPES raised in the *open* air.

For the	best 3 bunches, black, any foreign varieties,	5
"	second best,	3
"	best 3 bunches white, any foreign varieties,	5
"	second best,	3
"	best 6 bunches, Isabella,	2
"	second best,	1
"	best 6 bunches Catawba,	2
"	second best,	1
"	best 6 bunches any other native variety,	2

Raised under glass *without* artificial heat.

For the	best 4 bunches, black, any varieties,	5
"	second best,	3
"	best 4 bunches, white, any varieties,	5
"	second best,	3

Raised under glass *with artificial* heat.

For the	best 4 bunches, black, any varieties,	3
"	second best,	2
"	best 4 bunches, white, any varieties,	3
"	second best,	2

APPLES.

For the best 12 Autumn, one or more sorts,..... 2
" second best do. 1
" best 12 Winter do. 2
" second best do. 1
" finest and greatest display—named,..... 5
" second best do. do. 3
" best Seedling never before exhibited, ... 5

PEARS.

For the best 12 Autumn, one or more sorts,..... 3
" second best do. 2
" best 12 Winter do. 3
" second best do. 2
" largest and finest collection—named,..... 5
" second best do. 3
" best Seedling, never before exhibited,..... 5

PEACHES.

For the best 12 freestones, one or more sorts,..... 2
" second best do. 1
" best 12 clingstones do. 2
" second best do. 1
" largest and finest collection—named,.. 5
For the second best and finest collection—named,..... 3
" best Seedling never before exhibited,..... 3

PLUMS.

For the best two dozen, one or more sorts, ... 3
" second best,..... 2
" largest and finest collection—named,..... 5
" second best, do. 3
" best Seedling never before exhibited,..... 5
QUINCES.—For the best twelve,..... 2
" second best, do..... 1
WATERMELONS.—For the best pair..... 2
" second best,..... 1
MUSKMELONS.—For the best three,..... 2
" second best,..... 1
CRANBERRIES.—For the best two quarts, cultivated,.. 2

N. B.—Persons desirous of becoming members of the Association are informed that the entrance charge is $5, and that, by paying this sum to any member of the Executive Committee, on the day of exhibition, their names will be brought before the Association at once, and if not elected the money will be returned to them.

Strangers bringing choice plants, &c., to the city from a distance, are notified that they will be taken care of by Mr. James Hogg, 562 Broadway, opposite the rooms of the Association.

Persons intending to exhibit flowers, fruits, or vegetables, are particularly requested to notify Mr. Hogg, by mail or otherwise, in order that arrangements m·y be made for the proper exhibition of their specimens.

Officers of the Association.—Hon. Luther Bradish, *President;* Hon. Theodore Frelinghuysen, James Lenox, Esq., James Boorman, Esq., A. H. Stevens, M. D., Thomas A. Emmet, Esq., Hugh Maxwell, Esq., Stephen Whitney, Esq., Shepherd Knapp, Esq., Hon. William T. McCoun, Cyrus Mason, D. D., W. A. Seely, J. S. Livingston, Esqs., *Vice Presidents;* A. P. Halsey, Esq., *Treasurer;* Andrew H. Green, Esq., *Cor. Secretary;* R. Ogden Doremus, Esq., *Rec. Secretary;* Luther Bradish, Th. Frelinghuysen, James Lenox, R. L. Pell, (Ch'n.,) Col. Edward Clark, Wm. Coventry H. Waddell, Archibald Russell, Shepherd Knapp, R.K. Delafield, D. P. Gardner, (Sec'y,) *Executive Committee.*

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Notabilia—By Evelyn.—The aromatic oils of plants keep off insects that would otherwise destroy the parts of fructification, and the aromatic oils of woods (cedar, cypress, rosewood, &c.) preserve them from decay. The gates which were erected at Constantinople, in the time of Constantine, were of cypress, and stood eleven hundred years. (*Sir H. Davy.*)

The alburnum or sap wood of the birch tree, contains so much sugar and mucilage that it is sometimes used for bread in the north of Europe. (*Sir H. Davy.*)

The larger and thicker the leaves of a seedling, and the more expanded the blossoms, the better the fruit will be. Never select short leaved trees. (*Sir H. Davy.*)

The epidermis of hollow plants (canes, rattans, rye, &c.) contains siliceous earth. The rattan has so much silex or flint, that it will give out sparks when struck with steel. (*Sir H. Davy.*)

The *hexagonal* form of the cells of the bee arises from a mechanical law, (the form which pliable hollow *cylinders* take when pressed together) and not from the instinct of the bee. Solitary bees make their cells uniformly *circular*. (*Dr. Wollaston.*)

More rain falls in New England than in old England, where the showers are more frequent, but not so heavy. (*Dr. Dwight.*)

The hills of New England are moist to their tops. Water is obtained by digging at less depths than in adjoining vales. (*Dr. Dwight.*)

A peculiar caterpillar is made to spin lace veils, thus: a paste of leaves of which the worm is fond, is spread upon a flat surface, and by drawing with *oil* the figure to be left *open*. The caterpillar is placed at the bottom of the inclined plane, and eats the paste, spinning as he ascends. A yard square of the lace weighs only $4\frac{1}{8}$ grains, Troy. (*Babbage.*)

Seaweed taken from a depth of 205 feet was of a *green colour*, showing how small a portion of solar light is requisite for the effect. (*Humboldt.*)

Of all the plants of the globe, none produces such a mass of nutriment in so small a space as the Banana. It produces in less than a year from the planting, fruit, the bunches of which weigh often 88 pounds. (*Humboldt.*)

The value of the manure annually applied to the land in Great Britain, exceeds in amount the foreign commerce of the whole empire. (*Dr. Ure.*)

As meat and clothing come from animals, the great inquiry in agriculture is, what crops will least exhaust the soil and sustain the largest number of animals. (*Dan. Webster.*)

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Strawberry Blossoms.—Mr. Howard and myself examined *Hovey's Seedling* yesterday in my garden, and found the flowers perfect, the stamens being more fully developed than in any other variety, except Stoddard's Alpine, with the exception of half a dozen pistillate plants, on which no stamens could be perceived. My plants came from Mr. Hovey last year, 1846. Res. yours. *Luther Tucker. Albany, May* 24, 1847.

[Our neighbor, H. W. Sargeant, Esq., of Wodenethe, also lately showed us a bed of plants of this sort, which were sold him by Mr. Hovey himself in 1845, as the genuine fruitful sort. These plants bear what are usually termed staminate blossoms. Mr. Hovey has stated in an article on this subject, that his seedling is and always has been

a pistillate sort. This, indeed, appears to be the settled form which the variety commonly presents; yet how are we to account for the variation from it which appears in these stamen bearing plants just referred to, and which were received so directly and recently from the originator himself? Are there two Hovey's Seedlings, or does the sort vary?—Ed.]

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Salt for the Quince Tree.—Sir, I perceive you recommend salt for the plum and other fruit trees. I can also inform you, from continual experience, that this substance is equally of advantage to the quince tree.

When I first came to this section of the state, twelve years since, I found, on the premises I purchased, half a dozen fair looking quince trees, but which I understood had never borne any fruit. On inquiry, I learned that the quince tree did not bear well in my neighborhood, and that my neighbors thought it useless to plant this fruit tree.

In making a drain from my kitchen, it so happened that it emptied its contents near the roots of one of the quince trees mentioned. This tree, the season after, came into bearing, and as a good deal of brine had been emptied into this drain, I supposed the salt might have produced its fruitful state.

Acting on this supposition, I commenced applying salt early in the spring to the other quince trees at the rate of three quarts per annum to the surface of the ground under each tree, the trunks of which were then about as large as a man's wrist. They came into bearing the following season, and have given me constant and good crops every year since. My neighbors, who had never previously succeeded in growing quinces, have adopted my plan, and now find no difficulty; and I have myself planted more young trees, which are now beginning to bear well. Your obt. servant. *Oneida Co. May*, 1347.

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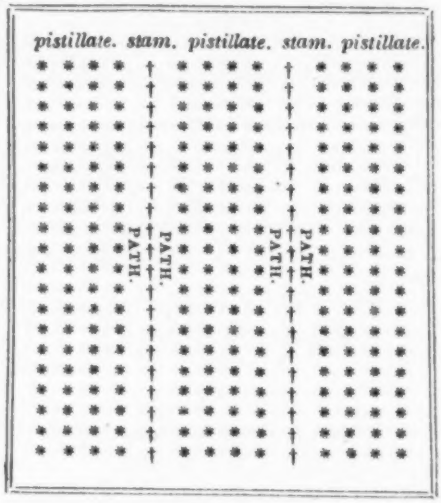
How to Plant Strawberries.—*Dear Sir:* I have read with a good deal of attention the articles on the Strawberry Question, and am glad to find that at last all agree in one point, and, I suppose, to cultivators the root of the matter, viz. that we must choose pistillate sorts to have permanent beds and large crops of the finest fruit.

But since, as is said, the staminates outgrow the pistillates, and are likely, before long, when the two are planted in mixed beds, to crowd the latter out, I would be obliged to you for your opinion, in brief, about the best mode of planting the two classes; also a memorandum of the three or four kinds whose character is so established that there need be no hesitation about planting them. Yours, with respect. *A Constant Reader. Philadelphia, June*, 1847.

[Answer.—The annexed arrangement will show our correspondent a very simple and effectual mode of growing the finest strawberries, *with the certainty of a large crop.* In this * represents pistillate plants, occupying beds four feet wide; † represents staminate plants, occupying intermediate strips or beds one foot wide. Between the strip of staminates and the bed of pistillates, it will be seen that a walk intervenes on either side. This effectually prevents any intermixture of the runners—always supposing, as would of course be the case, that the walks are kept free and clean. In this case the beds are supposed to be planted with four rows, and the plants to be kept in this form by cutting off the runners every season. Following this plan, and manuring between the rows every spring, the beds will continue in fine order for several years.



Among the best pistillate strawberries that have as yet come under our notice for the wide beds, are the *Black Prince, Hovey's Seedling, Hudson, Willey, Bishop's Orange*, etc. The best stamen bearing sorts for the intermediate strips, are *Large Early Scarlet, Virginia Scarlet, Duke of Kent*, etc. These have perfect blossoms, and will always give a good crop of themselves, as well as abundantly fertilize the whole adjoining beds of pistillates.

Besides these, some of the strips may be occupied by the larger staminates, such as *Swainstone Seedling, Myatt's Eliza, Ross' Phœnix, Myatt's Deptford Pine*, etc., which will, in suitable soils where their flowers are perfect, not only fertilize the pistillates in the four feet beds, but bear crops of very large berries themselves.

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Apple Borer.—One of the greatest pests to the grower of the whole apple tree tribe, including thorn, quince, mountain ash, etc., is the insect known as the Apple-tree Borer (*Saperda bivittata.*) The perfect insect which appears here early in June, and flies at night, is a brown and white striped beetle, about half an inch long. This beetle deposits its eggs in the bark of the trees most frequently near the ground, or in the fork of the branches. The egg hatches, becomes a white grub, which perforates the trunk in all directions, and often destroys it, when the insects are numerous, as completely as if it were divided by a saw.

The first indication that gives notice to the common observer, of the presence of this borer, is the appearance of numerous small round holes in the bark of the trunk, looking as if the tree had been perforated by buckshot.

This insect is a difficult one to combat successfully. In some parts of New-England, where it has been allowed to multiply at its own pleasure, it has destroyed whole orchards.

We have studied its habits with some care thi season, and offer the following suggestions as worthy the attention of those whose trees are attacked by it.

1st. Examine all trees liable to be attacked by this borer *early in the spring*, certainly before the first of May, in order, if possible, to destroy the larva before it comes out of the trunks in beetle form. This should be done, as far as possible, by *plugging up the holes with pieces of soft pine soaked in very strong tobacco water.**

2d. Before the time for the beetle to emerge from the tree, *i. e.* from the middle of May to the first of June in this region, wash the whole trunk of the tree from the surface of the ground beyond the fork of the principal branches, with a mixture of soft soap and tobacco water, made of the consistency of thick paint.

We have found, when this is brushed over the stems of the trees, it is for a long time so offensive to the insect that it will not deposit its eggs in the bark beneath it.

These two precautions, thoroughly put in practice, will, we trust, be found sufficient to put a stop to the ravages of the Apple Borer.

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Death of S. G. Perkins.—Since the publication of our last number, we learn with regret the death of one of our most highly valued correspondents, Samuel G. Perkins, Esq. He died at his country seat at Brookline near Boston, the scene of his zealous horticultural labors and enjoyments for many years, at a ripe old age. We never remember to have met with an amateur, and rarely with a professional cultivator, whose knowledge of fruit trees, and whose successful treatment of them exceeded that of Mr. Perkins. The few last years of his life were overshadowed by a partial loss of his sight; but even this could not wean him from the pleasures of his garden; and we remember with what interest he showed us, during our last visit at Brookline, peculiarities of growth in certain trees in his fine gardens, which would have escaped the notice of common observers, but to which he was profoundly conscious, through almost as much of the sense of feeling as that of sight.

The most excellent practical papers which have appeared in our columns, were chiefly dictated to an amanuensis. Our readers, no less than ourselves, will regret the loss to the gardening world of one so thoroughly versed in the practical knowledge of our favorite art.

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Potatoe Blight an Atmospheric Disease.—After all the investigations made for ascertaining the *cause* of disease in potatoes, we have yet nothing conclusive. In 1844, in many parts of Vermont, the crop of potatoes was almost a total failure. In this immediate vicinity, the disease was hardly known. In 1845, in places which suffered in 1844, the disease had partially passed off, while in this vicinity there was almost a total loss. In 1846, not a single instance of the disease in this vicinity has come to my knowledge. In the winter of 1845–6, I had carried from my cellar as many as one hundred and fifty bushels of diseased potatoes, and spread on about ten square rods in my garden, among young fruit trees—soil a secondary formation of coarse gravel, about two hundred and fifty feet above, and one mile from Lake Champlain, where the previous season potatoes had been planted and all rotted. In the spring of 1846, as many as fifty bushels more were spaded in the same ground. About ten bushels of sound and partially decayed potatoes were sorted from the last, when the whole mass of rotten potatoes was covered in the soil. Potatoes not totally decayed, grew so as nearly to cover the ground. They were cultivated, grew well, produced a good crop, were dug at the usual time, and put on the bottom of my cellar. More than one hundred bushels were put over them. They were taken out last month, and no symptom of disease could be detected among them. No manure or any other matter was applied either to the soil or potatoes, before or after gathering. *Chauncey Goodrich. Burlington, Vt. June*, 1847.

[We would call the attention of some of the English speculators on the potato disease, to the foregoing curious facts.—Ed.]

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Worcester County (Mass.) Horticultural Society.—This society held its annual meeting a few days since, at which the following gentlemen were unanimously elected its officers for the ensuing year:

Isaac Davis, *President;* Isaac Southgate, William Workman, Asa H. Waters, *Vice-President;* George Jaques, *Rec. Sec.;* John Milton Earle, *Cor. Sec.;* Frederic W. Paine, *Treasurer;* Anthony Chase, *Librarian;* F.W. Paine, George Jaques, Edmund F. Dixie, *Committee of Arrangements.*

The Society propose to have four exhibitions this year, one in July, one in August, one in September, and one in October.

Their new and beautiful Hall, in the Waldo Block, will afford spacious accommodation for the rich displays of fruits and flowers, which the increasing interest and improving taste of the horticulturists of the county can so easily furnish for the entertainment of their friends. *Worcester Telegraph.*

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St. Louis Hort. Society.—*To A. J. Downing, Esq.:* I presume you have already observed that we have formed a horticultural society in St. Louis, and that you are among the honorary members thereof elected. I take pleasure in stating that the Society has begun its existence under very favorable auspices, and that prosperity and usefulness seem to be promised to it in a high degree.

Amid many doubts and misgivings, a first exhibition of flowers and vegetables was made on the first of May. The show far exceeded the most sanguine expectations of its projectors and of the community, and was visited by a very respectable number of our citizens. One of our largest public halls was well lined on all sides by a handsome and various collection of green-house plants, and the tables exhibited some beautiful bouquets and cut flowers, Tulips, Tree Pæonies, etc., and good samples of early vegetables. I sent you one of our daily newspapers containing the reports of some of our committees. The result has encouraged us

* Made by steeping common tobacco, or the stalks of the same, in water.

very much, and we have resolved upon another exhibition in September, when we anticipate a considerable increase in the number of contributors. Our Society as yet meets but monthly, and at each meeting new members are added. Among the topics particularly interesting to us in this vicinity, now before the society for discussion, are "The Pear Blight, its causes and remedies;" "The Curculio, how are its ravages to be prevented?" etc.

Our Society is the first movement of the kind west of the Mississippi; and we are happy in believing that it is likely to succeed *ab initio*.

The following is a list of the officers; Thomas Allen, *President;* Gen. William Milburn, *1st Vice President;* Capt. Lewis Bissell, *2d Vice President;* J. B. Crockett, *3d Vice President;* John C. Bredell, *Treasurer;* Edward Hazen, *Cor. Sec.;* A. B. Chambers, *Rec. Sec.;* Judge W. C. Carr, *Chairman of Councll;* and there are five standing committees. Yours. *A Subscriber. St. Louis, Mo., May,* 1847.

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Albany and Rensselaer Horticultural Society.—At a meeting of gentlemen from Albany and Rensselaer counties, held at the State Agricultural Hall, on Monday, the 21st June, the meeting was organized by calling Joel Rathbone, Esq., of Albany, to the chair, and Stephen E. Warren, Esq., of Troy, was appointed Secretary.

The objects of the meeting were stated by Herman Wendell, M. D., and remarks in relation to the propriety and expediency of organizing a Horticultural Society for the counties of Albany and Rensselaer, were made by Dr. Wendell, B. P. Johnson and J. J. Viele.

On motion of Dr. Wendell, a committee of five were appointed to propose a constitution and by-laws for a Horticultural Society, to be called the Albany and Rensselaer Horticultural Society.

The committee retired; and on their return reported through their chairman a constitution and by-laws, for the consideration of the meeting—which after discussion and amendment, were unanimously adopted.

Gen. Viele, from the committee to nominate officers, reported the names of the following persons who were unanimously elected:—

President—JOEL RATHBONE, Albany.

Vice-Presidents—Henry Vail, Troy; Herman Wendell, M. D., Albany; Alexander Walsh, Lansingburgh; V. P. Douw, Greenbush.

Secretary—B. P. Johnson, Albany.

Treasurer—A. E. Brown, Albany.

Managers—George B. Warren, Troy; J. McD. McIntyre, Albany; Albert Richards, West-Troy; S. E. Warren, Troy; E. P. Prentice, Albany; C. F. Crosby, Watervliet; James Wilson, Albany; Wm. Newcomb, Pittstown; Wm. Walsh, Albany.

Dr. Herman Wendell, S. E. Warren and J. McD. McIntyre were appointed a committee to prepare and report a premium list for the year 1847.

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Cultivation of the Cranberry.—Sullivln Bates of Bellingham, Mass., has issued a circular in relation to the cultivation of the Cranberry, from which we gather the following:

He states, that he has ascertained that there are three varieties of the Cranberry. Of these he thinks there is only one, which he calls the "Bell," that is adapted to a dry soil. He thus describes this variety: "The berry grows much in the form of an egg; it is inclined to grow, in a wild state, on the borders of Cranberry bogs, spreading its way to upland soils. It is much larger than the other kinds in its wild state."

He advises, that persons engaging in the cultivation of the article, should commence with the "Bell" variety; and he says, "by commencing with those which have been cultivated, or naturalized to a dry soil, they will much sooner accomplish their object, and with much less trouble and expense, as the plants multiply and increase abundantly." He states that from one or two thousand plants enough may be obtained in two or three years to plant "acres."

His directions for cultivation are, to select a moist soil, not liable to bake. Loamy soils, which are moderately dry, and contain a mixture of sand, he states, are well adapted to grow the Cranberry. He directs to prepare the soil "the same as for sowing grain, by plowing, harrowing and making it even, then mark it out in drills eighteen or twenty inches apart, putting the plants in the drills five or six inches apart; hoe them slightly at first, till the roots become clinched, and afterwards no other cultivation is needed. The plants may be expected to run together and cover the whole soil in two or three years."

Under cultivation, the yield of the Cranberry is stated to be "from 150 to 400 bushels per acre; its fruit is two or three times as large as the wild, and of a superior flavor; it readily keeps sound from the harvest of one year to that of the next. The fruit is generally gathered in September, with wire-tooth rakes, made for the purpose; one man generally gathering from thirty to forty bushels per day, with the aid of a boy to pick up the scattering fruit.

The roots may be planted either in spring or fall, Spring planting may be done from the time the ground can be worked till the tenth of May; fall planting may be done in October and November.

Mr. Bates has plants for sale, at the rate of eight dollars per thousand for quantities less than one thousand, and seven dollars per thousand in larger quantities.

Mr. B. G. Boswell, of Philadelphia, observes, in regard to shipping cranberries, that they should first "be run over a platform slightly inclined. The rotten or bruised fruit," it is said, "will not run off, but stick going down the platform, and are scraped off and thrown away. The perfect fruit is then put into tight barrels, and when headed up filled with water, and in this manner they arrive in Europe in perfect order, and have frequently sold in foreign ports at twenty dollars per barrel." *S. H.*

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Position of Flower Beds.—It often happens that two different flower beds may be equally well managed, and flourish alike, yet one may be a mass of brilliancy, while the other exhibits little or no beauty. There are many flowers which always face the light or the sun; consequently the beds should be so placed that the spectator in the walk

or window, should look them full in the face. That is, the strongest light and the position of the spectator should always be on the same side of the bed. This will be found particularly necessary with the pansy or tri-colored violet, and some other of the smaller flowering plants.

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BEST SITES FOR FRUIT GARDENS.—Edson Harkness, of Peoria, Ill., who has had much experience in fruit raising, makes the following statement in relation to the culture of the peach and grape, (which are partially tender,) which will be found to contain valuable information to western fruit cultivators, and which fully accords with experience elsewhere. "The peach and grape flourish best upon our highest lands, and upon a thin soil; and it does not seem expedient to cultivate these fruits extensively on any other. The beautiful gently swelling hills, called mounds, which are found interspersed all over our prairie country, are, so far as tried, peculiarly adapted to the culture of the peach and the vine. The exemption of the mounds from frost, after vegetation starts in the spring, gives them a great advantage over lower situations. During the last ten years, the wild grapes upon our highest lands have not been injured by frost, while in the low lands or hollows, they have been destroyed nearly every alternate year. And when the peach trees are injured by the winter in every other situation, those on the mounds escape." *T.*

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SUCCESSFUL TRANSPLANTING.—A Michigan correspondent of the Genesee Farmer says, "In the fall of 1845, and spring of 1846, I planted three hundred fruit trees of the various kinds, and *have not lost one* out of that number, notwithstanding the drouth so severe here last summer. Some of the apple trees have grown three feet; and peaches generally two feet, and some four to six feet. I set them on a piece of rich new land; dug the holes from three and a half to four feet in diameter, and from eighteen to twenty-four inches deep, filled them up with rich muck and black sand and loam. The earth that was thrown out of the bottom was not thrown back." All such good treatment can scarcely ever fail of similar success. No planter should ever expect to lose a single tree; and he need not if he treats all properly. Every tree that dies by removal, does so from abuse and bad treatment. Avoid such treatment, and all will live as a matter of course. *T.*

PENNSYLVANIA HORTICULTURAL SOCIETY.

The monthly meeting was held as usual on Tuesday evening, June 15, 1847. The President in the chair.

Several tables of fine plants were shown on the occasion, and very beautiful baskets of cut flowers, also a number of well grown vegetables in great variety, and fruits. Of the latter, there were dishes of delicious Strawberries and Cherries, and also specimens of Apples in perfect preservation, of which several were fall varieties; their fine condition was effected by means of Kephart's patent fruit and vegetable preserver, the secret of which is, by means of ice to maintain a uniform temperature, so near the freezing point as to arrest the rotting as well as the ripening process, without danger of freezing them. They were presented by Messrs. Flack, Thompson, and Brothers.

The following premiums were awarded:

At the intermediate meeting, June 1, for the best two quarts of strawberries to John Austin, gardener to Isaac B. Baxter; for the next best strawberries, to Patrick Gallagher, gardener to Miss Gratz.

On the present occasion: By the Committee on Plants and Flowers.—For the best twelve Rocket Larkspurs, to Anthony Felten. For the best hothouse plants, to Archibald Henderson, gardener to T. W. Smith. For the second best ditto, to William Hall, gardener to C. Cope. For the best greenhouse plants to Archibald Henderson. For the second best ditto, to the same. For the most interesting collection of plants in pots, to Benjamin Gullis, gardener to Jacob Snider jr. For the second best ditto, to Archibald Henderson. For the third best ditto, to Robert Kilvington. For the fourth best ditto, to Patrick Gallagher. For the best indigenous plants, to Archibald Henderson. For the best basket of cut flowers, and for the second best basket, to Robert Kilvington: and special premiums of one dollar each for bouquets to William Hall, gardener to C. Cope, Patrick Gallagher, gardener to Miss Gratz, and to A. Henderson.

By the Committee on Fruits—who report that they have examined and tasted of those apples which have been preserved by the vegetable and fruit preserver, invented by Mr. Kephart, comprising five varieties, viz. Cider, Bellefleur, Favorite, Germantown, and Newtown Pippin, and deposited by Flack, Thompson & Bro., and recommend a premium of three dollars. And for the best strawberries they recommend a premium of two dollars to Andrew Patton, gardener to Mrs. Kohne. For the second best, called "Buist's Prize," one dollar to Robert Buist. For the best cherries, three pounds, to Andrew Patton; and for the second best cherries, to Jno. Austin, gardener to Isaac B. Baxter.

By the Committee on Vegetables.—For the most interesting display, to Jno. Austin, gardener to Isaac B. Baxter. For the second best display, to Anthony Felten. For the third best display, to Patrick Gallagher, gardener to Miss Gratz. For the best artichokes, six in number, to Andrew Patton, gardener to Mrs. Kohne. And a special premium of one dollar for a fine display of Cucumbers and Tomatoes, exhibited by Wm. Hall, gardener to Caleb Cope.

The Treasurer presented his semi-annual statement of accounts, which was read and referred.

The Committee to superintend exhibitions reported a vacancy in their number, which the president filled by appointing Dr. James H. Bradford.

A communication to the Secretary, from Messrs. Elwanger and Barry of Rochester, N. Y., was read, describing the Northern Spy Apple, and declining the premium awarded at the last meeting, and presenting it as a donation to the Society.

The Corresponding Secretary reported a communication from Mr. A. H. Ernst, near Cincinnati, Ohio, in reply to his, announcing Mr. Ernst's election to honorary and corresponding membership, which was read.

THOS. P. JAMES.
Secretary.

MASSACHUSETTS HORTICULTURAL SOCIETY

Exhibition of Saturday, May 15, 1847.

GREEN-HOUSE PLANTS.—The opening of the hall to the public for the season, was postponed from the first of the month to this day on account of the unusual backwardness of the season. In the bloom of Apricots, Cherries, and other trees, we notice three weeks difference between this and last year, and in Hyacinths nearly the same. A season so cold and unpropitious, gave but little promise to the public of a great display of flowers, but in this, no doubt, all who witnessed the exhibition were happily disappointed. It was one of the best displays of choice plants ever witnessed in the hall, perhaps *the* best. The Society are greatly indebted to the amateurs and other cultivators, who so liberally contributed their plants for the occasion.

From *M. P. Wilder*, President of the Society, a grand display of green-house plants in pots—one very large Azalea indica variegata; two smaller do.; Azalea nudiflora ornata, recently imported from Germany, hardy variety, (very fine;) twenty plants of seedling Azaleas, all different, some of them very fine striped varieties; thirty Calceolaria seedlings, all distinct, very beautiful, of every color and tint; twelve very fine Cineraria seedlings; six Petunia seedlings; one Persian Yellow Rose; two Moss do.; White Unique Moss, (new;) Bourbon, Madame Angelina, new, singular color and high scent; Erica ventricosa superba; two Erica odorata, white, fragrant; two Epiphyllum Jenkinsonii; one Cactus flagelliformis; one Camellia coquetti; and one Clematis azurea grandiflora, fine. Cut flowers—*Camellias*, Duchesse d'Orleans, Pratti, Fimbriata, candidissima, cruciata, alba plena, and two new seedlings; *Roses*, Noisette, Lamarque, Bourbon, Paul Joseph, C. Beauharnais, B. Gouvain St Cyr, B. Edward Desfosses, B. Madame Desprez, Tea, Julie Mansais, T. Devoniensis, T. Eugene Jourvain, Hybrid perpetual, Duc d'Alencon, (new,) H. P. Melanie Cornu, and Noisette Solfatare in great quantity; also two new varieties of Perpetual Carnations.

From *Joseph Breck & Co.*, a great variety of Hyacinths, Narcissus, Crown Imperials, and other hardy flowers.

From *William Mellar*, twelve plants of splendid Seedling Calceolarias; eight do. Pelargoniums; one Fuchsia venus victrix; also a great variety of cut flowers, including Pelargoniums, Verbenas, Calceolarias, Roses, &c.

From *T. H. Perkins*, by William Quant, six plants of beautiful Seedling Cinerarias; eight large do. of Double Crimson Stocks, very fine; twelve do. Pelargoniums, viz: Ophelia, Matilda, Sylph, Speculum mundi, Alarm, Lady Duro, Lilac Perfection, Rienzi, &c. A magnificent specimen of Stephanotus floribundus, very fragrant, and the first plant ever exhibited in the rooms. Six do. Fuchsias, viz: Defiance, Chauverii, Smith's Victoria, Williamsonii, Epsii, Paragon; Cactus Mayfly; and fine plant of Gloxinia. Also fine cut flowers, including Stephanotus, Roses, Pelargoniums, Gloxinias, Calceolarias, &c.

From *John A. Lowell*, by Thomas Willott, a variety of curious and rare plants; among them that singular production of nature, the Nepenthes distillatoria, or Pitcher plant, Cattleya intermedia; very beautiful; Maxillaria aromatica; Jatropea pandurælolia; Russellia juncea, a splendid plant; and Tabermontana coronaria.

From *Azel Bowditch*, one Orange tree, with fruit and flowers; twelve plants of Calceolarias; one Moss tree Rose; two white Ivy leafed Geraniums; two pyramidal bouquets, and five flat do.; also cut flowers in variety.

From *Nahum Stetson*, South Bridgewater, one fine plant of Cytisus racemosus, and fine specimens of Madam Desprez Rose.

From *John Hovey*, one plant of Euphorbia splendens.

From *John L. Gardner*, by J. Thomas, nine varieties of Seedling Verbenas; Sweet Peas; one ornamental moss vase and pedestal, with five bouquets of flowers; also two parlor bouquets in moss vases, and one large flat bouquet composed of choice flowers, very beautiful.

From *James Nugent*, cut flowers, Calceolarias, Cinerarias, Roses, Verbenas, &c., &c., in great variety.

From *J. L. L. F. Warren*, two parlor and eight hand bouquets; twenty-six species of Cactus, some of them very curious.

From *J. N. Mandel*, one bouquet.

From *A. C. Fernall*, Revere place, one fine plant of Ivy leafed Geranium, beautifully trained.

From *O. H. Mathers*, a great variety of cut flowers, including Lupinus Hartwegii, Roses, Calceolarias, Cinerarias, Abutilon, with many fine specimens of beautiful plants.

From *William B. Richards*, cut flowers.

From *Hovey & Co.*, six plants of Pelargoniums, new varieties; and one Hydrangea japonica, new and beautiful.

AWARD OF PREMIUMS.

CALCEOLARIAS.—1st prize to *William Mellar*, $3; 2d do. to Mr. *Bowditch*, $2.

HYACINTHS.—1st prize to Mr. *Breck*, $5.

BOUQUET, LARGE.—A prize to *John Thomas*, $2.

SIX HAND BOUQUETS.—1st prize to Mr. *Bowditch*, $2; 2d do. to *J. L. L. F. Warren*, $1.

The Judges recommend a gratuity of $5 to *John Thomas*, for his beautiful design and two moss vases of flowers.

PELARGONIUMS.—1st premium on Class II, to *Wm. Quant*, $6; 2d do. to *Wm. Mellar*, $4.

CINERARIAS.—1st premium to *Wm. Quant*, $3.

FUCHSIAS.—1st premium to *Wm. Quant*, $6.

VARIOUS SORTS.—Best display, not less than 12 plants, 1st premium to *Wm. Quant*, $3; 2d do. to *A. Bowditch*, $5.

CUT FLOWERS.—1st premium to *Wm. Quant*, $3, 2d do. to *James Nugent*, $2.

GRATUITIES.—To *M. P. Wilder*, President of the Society, for his splendid display of greenhouse plants, $8. To *Thomas Willott*, for plants from *John A. Lowell*, $3. To *Henry Reed*, gardener to Nahum Stetson, for *Cytisus racemosus*, $3.

FRUITS.—On the opening of our hall to-day, for the present season, *John Fisk Allen*, Esq., of Salem, presented *twelve varieties* of ripe grapes, dished up in his usual fine style, viz. Early Black July, Miller's Burgundy, Early White of the French and Pitmaston white cluster (these four are the earliest grapes, and the Pitmaston the earliest and the best of these,) Zinfindal Ferral, Black Hamburg, White Chasselas, Chasselas de Bar-Sur-Aube, Aleppo, White and Grizzly Frontignan; also Black Figs of St. Michael.

VEGETABLES.—From *O. H. Mather*, by Thomas Needham, a variety of Cucumbers, among which were the Manchester and Weeden's Prize.

From *Orr N. Towne*, a brace of cucumbers.

J. Fisk Allen exhibited Tomatoes, April 24 and May 1.

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Saturday, May 22, 1847.

FLOWERS.—From *M. P. Wilder*, President of the Society, 12 plants of his fine new seedling Calceolarias, spotted and variegated, very beautiful; three varieties of Ericas in full bloom; cut flowers, including fine specimens of Camellias, among which we noticed a fine new seedling of regular formation, color light pink, slightly striped with white, which promises well, also Henry Favre, Sarah Frost, Double White and other varieties. *Roses:* Tea, Princess Adelaide, new, very large pale yellow, high scented; Noisette Solfatare in quantity; this variety proves to be an abundant bloomer under proper treatment as we have witnessed; we are informed that the gardener cut 100 Rose buds from one plant on May morning; also Bourbon and Hybrid perpetual Roses, and specimens of forced Ghent Azaleas.

From *Lucinda Spaulding*, South Reading, a fine plant of Cactus extensus, in full bloom.

From *A. Bowditch*, two round pyramids, six hand, and one large flat vase or mantel bouquets. Ten pot plants, viz: one seedling picotee Pink, Prairie Rose, Lechenaultia formosa, Petunia, Erica ventricosa superba, Sedum var. Fuchsias, and two Cactus. Also cut flowers, principally Roses.

From *S. R. Johnson*, fine specimens of Pyrus japonica.

From *R. M. Copeland*, very fine Hyacinths and Cactus.

From *Joseph Breck & Co.*, Hyacinths in great variety; five varieties of Phlox subulata; Phlox decumbens and stolonifera, Pulmonaria virginica, Iris pumila and cristata, Pansies

in variety; Pæonia tenuifolia and hybrida; Primula polyanthus and vera; White Swan, and other early double Tulips. Crown Imperial, double and single red, yellow, &c. Cynoglossum omphaloides; Fumaria formosa and other hardy herbaceous and bulbous flowering plants. Also, double and single Peach blossoms, Crab Apple, Pear and other fruit flowers. These were introduced not only for their beauty, but also to show the extreme lateness of the season in comparison with the last. On the 5th of May, 1846, the apple trees were in full bloom, now the buds are only beginning to show their colour. The blossoms of the Pear are not yet fully developed, while the Peach, Cherry, and Plum are in perfection.

From *J. W. Mandel*, two bouquets; cut flowers, comprising Pelargoniums, Heliotrope, Verbenas, Roses, &c.

From *O. H. Mathers*, by Thomas Needham, fine cut flowers, including Verbenas, Pelargoniums, Cinerarias, Lupines, Phlox Drummondii, Abutilon, Acacia, Cytisus, Kennedia racemosa, Primulas, &c., &c.

From *J. L. L. F. Warren*, two Fuchsias and one plant of Burchelia speciosa, rare and beautiful; and one Calistemon splendens. Also, one table and six hand bouquets.

From *T. H. Perkins*, by William Quant, a magnificent plant of Stephanotus floribundus, one of Cineraria, two Fuchsias, three geraniums, and one large mantel bouquet.

From *Hovey & Co.*, fine Pansies.

From *J. L. Gardner*, by J. Thomas, six fine plants of Verbena, entered too late for premium. Also a fine display of cut flowers, including sweet peas in great variety, fine seedling Pelargoniums, Nemophylla insignis grandiflora, Calceolarias, Nasturtiums, &c.

AWARD OF PREMIUMS.

For the best large Mantel bouquet, 1st premium to *Azel Bowditch*, $2; 2d do. to *Wm. Quant*, $1.

For the best six Pot Plants, 1st premium to *Wm. Quant*, $2; 2d do. to *Azel Bowditch*, $1.

The Committee award a gratuity of five dollars to *Wm. Quant*, for a splendid plant of Stephanotus floribundus. Also, to *R. M Copeland*, a gratuity of three dollars for a fine display of beautiful Hyacinths

FRUITS.—Mr. *Allen*, of Salem, made a fine display of his splendid Grapes—viz: Ferral, Black Hamburgh, Zinfindal, early Black July, Grizzly Frontignan, Pitmaston white cluster, and white Chasselas. Also, Black and White Figs of St. Michael, Azores. The Pitmaston white cluster, is a small round berry, and when fully ripe of a fine yellow colour; it is the earliest Grape, and will ripen in from ten to twenty days less time than the Chasselas or sweet water. It is a very desirable variety.

VEGETABLES.—From *T. H. Perkins*, by Wm. Quant, some fine Asparagus.

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Saturday, May 29, 1847.

FLOWERS.—From Messrs. *Winship*, flowering shrubs, including fine specimens of rare Spiræas, Purple Beech, Azaleas, Pyrus Japonica, Wistaria, double flowering Peach, with a great variety of other cut flowers

From *Wm. Mellar*, Tulips in variety, Pelargoniums, Verbenas, Pansies, Iberis, &c. Also, fine seedling Polyanthus.

From *E. M. Richards*, Tulips in variety, Trillium pictum, Dodecatheon, and other cut flowers.

From Miss *Russell*, a basket of flowers tastefully arranged; Wistarias, &c.

From *J. L. Gardner*, by J. Thomas, three plants of Verbenas, one Tropæolum minor, seedling Calceolaria, and Pelargonium Matilda; one beautiful Moss Vase and flowers, and forty varieties of Tulips.

From *J. L. L F. Warren*, eight pot plants, viz: Rhododendron, var. Euphorbia splendens, Justicia carnea, Justicia calytricha, two double Chinese Primroses, and two do. rose colored; also, six flat bouquets, five round do.; a fine display of Rhododendrons and other cut flowers.

From *Peter Ivory*, Tulips.

From *Edward Winslow*, fine Tulips.

From *Parker Barnes*, fine Pansies in variety; seedling Verbena, ever-blooming Pinks, and Azalea Gledstanesii, a fine variety, white striped with scarlet.

From *Lucinda Spaulding*, South Reading, a plant of Cactus.

From *Azel Bowditch*, seven hand bouquets, six pot plants, and cut flowers in variety.

From *Augustus Aspinwall*, a splendid display of Roses.

From *Samuel Walker*, fine Tulips.

From *W. B. Richards*, fine Tulips, Polemonium Mexicanum, and other cut flowers; one fine bouquet, and a quantity of the Lily of the Valley

From *Eben'r Wight*, Tulips in great variety.

From *Joseph Breck & Co.*, 200 fine Tulips, four varieties of Pæonies, Dodecatheon Meadia, two varieties; a beautiful new Aquilegia, (A. jucunda,) Iberis Tenoreana, fine perennial; Wistaria sinensis; Pulmonaria Virginica, Lychnis flosculi, Phlox stolonifera and divaricata; variegated Mountain Ash; shrubs and cut flowers in variety.

From *James Nugent*, fine Tulips, Pelargoniums, Roses, Verbenas, and a variety of cut flowers.

From *Hovey & Co.*, fine Pansies, and two bouquets.

AWARD OF PREMIUMS.

The Judges on Tulips, Pansies, Pot Plants and Bouquets, Messrs. *Quant, Richards* and *Dutton*, awarded as follows:

TULIPS.—For the best thirty distinct varieties, a premium of $8 to *Joseph Breck & Co.*; for the second best thirty varieties, the 2d premium of $6 to *Samuel Walker*.

PANSIES.—For the best twelve distinct varieties, a premium of $4 to Messrs. *Hovey & Co.*, by J. H. Burns; for the 2d best twelve varieties, a premium of $3 to *Joseph Breck & Co.*; and a gratuity of $2 to *Parker Barnes*, for a pan of fine varieties

POT PLANTS.—For the best six Pot Plants, a premium of $2 to *J. L. Gardner*; for the second best do., $1 to *J. L. L. F. Warren*. The Judges award to *J. L. Gardner*, by John Thomas, a gratuity of $2, for a moss vase with flowers.

BOUQUETS.—For the best six hand bouquets, a premium of $2 to *Azel Bowditch*; for the second best do., $1 to *J. L. L. F. Warren*.

FRUITS.—By Mr. *John Fisk Allen*, Salem, Grapes, viz: Chasselas Bar-Sur-Aube, Black Hamburg, White Frontignan, Sweetwater, Zinfindal Aleppo, Grizzly Frontignan. Also, White Figs.

VEGETABLES.—From *O. H. Mather*, by Thomas Needham, fine Cucumbers, var. Black Spine.

From *T. H. Perkins*, by Wm. Quant, Asparagus and Black Spine Cucumbers.

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Saturday, June 5, 1847.

FLOWERS.—From M. P. WILDER, *President of the Society*, a rich collection of rare cut flowers, viz: fine Cactæ in variety; two new spotted seedling Calceolarias, and a variety of others from his collection; Camellias, var. Alba plena and Prattii; *Fuchsias*, Salterii major, Paragon, Bowdin, Brookmanii, Chauverii, and robusta; six or eight varieties of elegant Cinerarias; *Petunias*, Eliza, Contributor, Tunandra, and a fine plant of Hebe, well grown and in perfection; six varieties of Lilacs, viz: Duchess d' Orleans, De Nemours, Charles X., Prince Nolger, double Purple, and a dark red.

From Messrs. *Winship*, a fine, round, pyramidal bouquet, and a great variety of cut flowers, as follows: Ranunculus repens; Veronica gentianoides; Arundo striata; Syringa laciniata; Bay-leaf Willow; Pyrus spuria; Azalea nudiflora, Pontica, and others; Podalyria Australis; Kerria Japonica; Calycanthus floridus; Æsculus flava and pallida; Ulmus crispa; Spartium scoparium; *Spiræa*, hypericifolia, oblongifolia, lævigata, ulmifolia, flexuosa, daurica, Siberica, Reevesii, trilobata, chamædrifolia and fol. variegata; Cratægus flore pl. and rubra; Mespilus grandiflora; Pæonies in variety; *Lonicera*, Caucasica, Tartarica, albiflora Xylosteum; Viburnum lantago; Amsonia latifolia; Balsamita odorata; Ribes alpina: *Iris*, Germanica, purpurea, lurida vel sordida, pallida, Virginica, Florentina albida; Ilex crispa; Sedum; Trollius Europeus; Vinca major; Hemerocallis flava; Asclepias vincetoxicum; Corydalis formosa, &c. This collection occupied the whole of one of the large round stands, and attracted much attention, from the good taste displayed in the arrangement.

From *Joseph Breck & Co.*, fine specimens of Castilleja coccinea, a beautiful indigenous flower; a branch of Wistaria sinensis, with more than fifty racemes of its elegant flowers drooping in the most graceful manner. The plant from which this was taken, was grown in the open air without the least protection, and made a growth, last season, of twenty-two feet in one direction. Tulips, in great variety and perfection, including some very superb double varieties; Pæonia arborea Banksii, and a variety of herbaceous sorts; Iris

in variety; Pansies; Lychnis flosculi; Fritillaria Persica; Dodecatheon Meadia; Hesperis matronalis; Phloxes, Iberis, and a variety of other herbaceous plants. Also, Persian Lilac, Red and White Tartarian Honeysuckle, variegated Mountain Ash, &c. This was one of the largest collections in the Hall, and attracted universal attention, from the many rare and perfect specimens it contained.

From *Augustus Aspinwall*, a fine display of Perpetual and other Roses.

From *Parker Barnes*, ever-flowering Pinks and fine Pansies.

From *Ebenezer Wight*, Tulips in variety.

From *T. H. Perkins*, by Wm. Quant, six pot plants, viz: *Fuchsia*, paragon, Victoria, Epsii, Williamsonii, (a seedling,) and Pelargonium Victory. Also, a splendid pyramidal bouquet. The pot plants were fine, and remarkably well-grown specimens.

From *A. Bowditch*, eight hand bouquets.

From *J. L. L. F. Warren*, six hand and one pyramidal bouquets; Pæonia arborea Banksii, and papaveracea; Daisies, Narcissus, Dodecatheon two varieties, Tartarian Honeysuckles, &c.

From *O. H. Mather*, cut flowers in variety, including fine Pelargoniums, Roses, Abutilon, Phlox Drummondii, Cinerarias, Collinsias, Verbenas, &c.

From *Wm. Kenrick*, by Miss Russell, one large oval bouquet, composed of a great variety of flowers; also, cut flowers, including Wistarias, Pæonia arborea Banksii, Kerria Japonica, variegated Horse Chestnut, Purple Beech, &c.

From *Wm. B. Richards*, one large bouquet, Polemonium Mexicanum, Lily of the Valley, &c.

From *John Hovey*, two bouquets, and Pæonia arborea Banksii, &c.

From *J. L. Gardner*, by J. Thomas, eight pot plants, viz: six Pelargoniums, one seedling Cineraria, and seedling Verbenas. Also, one superb moss vase and bouquet, and large bouquet for vase.

From *James Nugent*, cut flowers in variety, including fine Pelargoniums, Verbenas, Roses, fine Gladiolus, &c.

From *E. M. Richards*, cut flowers, viz: Iris, Tulips, Dodecatheon, Lychnis flosculi, &c.

From *J. W. Mandel*, one large flat bouquet.

AWARD OF PREMIUMS.

For the best large bouquet, a premium to *Wm. Quant*, of $2.

For the second best large bouquet, a premium to the Messrs. *Winship*, of $1.

To *Azel Bowditch*, for the best six hand bouquets, a premium of $2.

To *J. L. L. F. Warren*, for the second best six hand bouquets, a premium of $1.

For a design, a moss Vase with flowers, a premium to *J. Thomas*, of $2.

For the second best do., to Miss *Russell*, a premium of $1.

For the best six pot plants, to *Wm. Quant*, a premium of $2.

For the second best six do., to *J. Thomas*, a premium of $1.

FRUITS.—The Grapes presented this day by *John Fisk Allen*, Esq., of Salem, were very fine. We noticed among them, extra fine specimens of the Zinfindal, as also fine bunches of the Black Hamburg, White Chasselas, Aleppo, and Grizzly Frontignan. Mr. Allen also exhibited a box of fine *ripe* May Duke Cherries, Black Figs, and Bergamot Limes.

A dish of sweet Apples, by *A. Moore*.

W. E. Carter, of Cambridge, presented some Hubbardston Nonsuch Apples.

VEGETABLES.—From *O. H. Mather*, by Thos. Needham, a brace of Cucumbers, and some very fine Lettuce.

ENGLISH RURAL COTTAGE.

[Horticulturist. August, 1847.]